

19980123.qrp v00_n979.qrs.980123

Date: Fri, 23 Jan 1998 19:03:08 EST
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 979

QRP-L Digest 979

Topics covered in this issue include:

- 1) [1697] Re: CW in song
by n7mfb@juno.com (Bill Todd)
- 2) [1698] RE: WAS CW - DE & ND
by Kevin Muenzler <wb5rue@stic.net>
- 3) [1699] Re: Poor Man's Spectrum Analyzer?
by Charles Kadesch <chas@digizen.net>
- 4) [1700] Re: Elmers wanted...take charge yourself
by Chris Trask <ctrask@primenet.com>
- 5) [1701] Re: Older HF rig wanted + advise
by Ed Tanton <n4xy@bellsouth.net>
- 6) [1702] Re: Elmers wanted...take charge yourself
by Monte Stark <ku7y@sage.dri.edu>
- 7) [1703] Re: Morse code in a song
by Peter Larsen <larsenp@cadvision.com>
- 8) [1704] FT37 Core Neede
by Ed <edn4pk@VoyagerOnline.net>
- 9) [1705] Re: Elmers wanted...take charge yourself
by Joe Gervais <vole@primenet.com>
- 10) [1706] Re: [1644] Re: Morse code in a song
by Doug Faunt N6TQS +1-510-655-8604 <faunt@netcom.com>
- 11) [1707] RF volt meter
by LYN WILLIAMS <designserv@ipass.net>
- 12) [1708] RE: Test Equipment
by Adrian Weiss <aweiss@sunflowr.usd.edu>
- 13) [1709] Re: FT37 Core Neede
by Paul Helbert <phelbert@rica.net>
- 14) [1710] Re: [1624] Small Wonders WM-20 SSB mods & tips?
by Doug Faunt N6TQS +1-510-655-8604 <faunt@netcom.com>
- 15) [1711] RE: Effective antenna height and dirt.
by Adrian Weiss <aweiss@sunflowr.usd.edu>
- 16) [1712] Re: CW FOEVER AND EVER
by victnr@juno.com (Victor E Turner)
- 17) [1713] Re: Houston Livestock Show & Rodeo
by K5BDZ <K5BDZ@aol.com>
- 18) [1714] VHF/UHF CW?
by William Keith Hibbert <wb2vuo@frontiernet.net>
- 19) [1715] Re: Elmers wanted...take charge yourself

- by Robert Bayha <rbayha@ix.netcom.com>
- 20) [1716] Re: Elmers wanted...take charge yourself
by Robert Bayha <rbayha@ix.netcom.com>
- 21) [1717] 38s enclosures
by Thomas J McCuen <TMcCuen@compuserve.com>
- 22) [1718] Re: Elmers wanted...take charge yourself
by bruce muscolino <w6toy@pop.erols.com>
- 23) [1719] Re: FS: Radios
by ckrelic@usaor.net
- 24) [1720] WTB Vintage ARRL Handbook
by "Craig Lund" <clund@bestweb.net>
- 25) [1721] Fox Schedule
by "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>
- 26) [1722] Reciprocal propagation
by "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>
- 27) [1723] Re: Elmers wanted...take charge yourself
by mwattcpa@earthlink.net (Marty Watt)
- 28) [1724] Re: Elmers wanted...take charge yourself
by Joe Gervais <vole@primenet.com>
- 29) [1725] RE: Dan's NW8080 (Long)
by Ken Newman <n2cq@comten.com>
- 30) [1726] Re: RF volt meter
by Leon Heller <leon@lfheller.demon.co.uk>
- 31) [1727] Re: Twist on Elmer Project
by "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
- 32) [1728] Re: Elmers wanted...take charge yourself
by mikemo@ibm.net
- 33) [1729] Re: Houston Livestock Show & Rodeo
by K5BDZ <K5BDZ@aol.com>
- 34) [1730] Elmering and which kit to buy.
by Jess Gypin <jessqrp@concentric.net>
- 35) [1731] Re: Elmers wanted...take charge yourself
by eakwik@mail.hac.com
- 36) [1732] Re: WTB Vintage ARRL Handbook
by Paul Helbert <phelbert@rica.net>
- 37) [1733] Dan's NW8080 progress
by "Jeff M. Gold" <JGold@tntech.edu>
- 38) [1734] Re: Elmer project
by "Tracy, Michael, KC1SX" <mtracy@arrl.org>
- 39) [1735] 160 cw contest this weekend!
by Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>
- 40) [1736] Complete rules CQWW160M CW
by Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>
- 41) [1737] heathkit parts
by rspenc@creighton.edu
- 42) [1738] Re: Elmer project
by Andy Fox <foxes@theriver.com>
- 43) [1739] NOVICE FOX SCORES

by adams@chuck.dallas.sgi.com (Chuck Adams)
44) [1740] Re: heathkit parts
by n7mfb@juno.com (Bill Todd)
45) [1741] Novice/Tech+ FOX Schedule
by adams@chuck.dallas.sgi.com (Chuck Adams)
46) [1742] Re: Twist on Elmer Project
by Monte Stark <ku7y@sage.dri.edu>
47) [1743] Dates and Novices
by adams@chuck.dallas.sgi.com (Chuck Adams)
48) [1744] NW80/20 vs NW8020 (long)
by sigcom@juno.com (Stephen M Smith)
49) [1745] FOX: 2 N/T Foxes Fri night
by "Buck, Preston D" <BuckPD@corning.com>
50) [1746] Re: Dates and Novices
by Monte Stark <ku7y@sage.dri.edu>
51) [1747] Elmers wanted
by bcutter@teal.csn.net (Bob Cutter)
52) [1748] Re: Elmer project
by Sam <kc5tja@animeonline.ml.org>
53) [1749] Re: Twist on Elmer Project
by "Ron Smith" <resmith@primenet.com>
54) [1750] Re: NW80/20 vs NW8020 (long)
by Paul Harden <pharden@aoc.nrao.edu>
55) [1751] Project: 40m CW Transceiver
by Sam <kc5tja@animeonline.ml.org>
56) [1752] Re: Effective antenna height and dirt.
by Ed Loranger <we6w@qsl.net>
57) [1753] Re: Effective antenna height and dirt.
by cooper@gmpvt.com (Tom Cooper)
58) [1754] Small World (Longish)
by "Marshall Emm" <mgemm@mtechnologies.com>
59) [1755] Emtech80/20
by tom whalen <whalen@swcp.com>
60) [1756] elmer kits
by talljazz@teleport.com (Dan Presley)
61) [1757] Re: Elmer project
by Laura Halliday <ve7ldh@direct.ca>
62) [1758] PAINTING ALUMINUM ENCLOSURES
by "Charles P. Sammut" <csammut@limbach.com>
63) [1759] file download
by RangerSF5 <RangerSF5@aol.com>
64) [1760] new lcr meter
by dave_epps@juno.com
65) [1761] RE: Elmers wanted...take charge yourself
by Tom Morgan <liveoak@sccoast.net>
66) [1762] QRP is finally fun! (Long)
by John Burnley <JBurnley@ifmc.org>
67) [1763] NorCal Paddles, 3rd Run

- by ki6ds@dpol.k12.ca.us (Hendricks, Doug)
- 68) [1764] Website for USED HP Calculators
by Derek Brown <DBrown@RFMD.com>
- 69) [1765] UTC in HI
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 70) [1766] RE: Effective Height -- more stuff
by Adrian Weiss <aweiss@sunflowr.usd.edu>
- 71) [1767] RE: Elmers wanted...take charge yourself
by "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
- 72) [1768] trade apple IIGS for qrp gear
by dave dabay <kd3pc@usit.net>
- 73) [1769] Want: Ten-Tec Accessory plug and Info??
by ka7you@juno.com
- 74) [1770] RE: Elmers wanted...take charge yourself
by "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>
- 75) [1771] RE: Elmers wanted...take charge yourself
by Sam <kc5tja@animeonline.ml.org>
- 76) [1772] 1997 Back issues of QRPp have Arrived (Long)
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)
- 77) [1773] FS MFJ-9020
by Michael Neverdosky <MichaelN@cycat.com>
- 78) [1774] NOT QRP - - A STORY
by Jeff Grudin <grudin@pacific.vdbs.com>
- 79) [1775]
by Bill Howell <bhowell@mail.utexas.edu>
- 80) [1776] Re: Elmers wanted...take charge yourself
by Steven Weber <kd1jv@moose.ncia.net>
- 81) [1777] Frequency Counter
by "Keith Hamilton" <khamilton@cisnet.com>
- 82) [1778] EMTech
by "Dan Hogan" <dhhogan@lightside.com>
- 83) [1779] Re: CW in a song
by rhiller@sysdev.com (Rick Hiller)
- 84) [1780] AA battery failure(long?)
by ka7you@juno.com
- 85) [1781] SWR/Tuner/FS Meter/Modulation Meter
by kd4kzq@juno.com (jim norsworthy)
- 86) [1782] CQC Banquet
by "Marshall Emm" <mgemm@mtechnologies.com>
- 87) [1783] Re: FS: MFJ-9020
by "Rod Logsdon" <bike4life@bikerider.com>
- 88) [1784] BUILD this receiver...
by Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
- 89) [1785] New Product Announcements!
by wpc@west.net (John Roblin / Whiterook Products Co.)
- 90) [1786] Power Meter bargain:Ten Tec's kit
by "rohre" <rohre@arlut.utexas.edu>

Date: Thu, 22 Jan 1998 18:59:29 EST
From: n7mfb@juno.com (Bill Todd)
To: bcutter@teal.csn.net
Cc: qrp-1@Lehigh.EDU
Subject: [1697] Re: CW in song
Message-ID: <19980122.155918.8055.1.n7mfb@juno.com>

On Thu, 22 Jan 1998 15:52:26 -0700 (MST) bcutter@teal.csn.net (Bob Cutter) writes:
>Wasn't KAOS the villian in Get Smart?
>
>72, Bob KI0G

Yes (ha ha). That was a perfect name.

I loved the telephone in his shoe. Now if a QRP Club REALLY wanted to come up with a cool thing like that, they would get rich. Forget about Altoids cans...

Hmmm....now, when is the next NW QRP Club Meeting?

CUL, Bill-N7MFB

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Date: Thu, 22 Jan 1998 18:24:24 -0600
From: Kevin Muenzler <wb5rue@stic.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>, <jhahn@bellatlantic.net>
Subject: [1698] RE: WAS CW - DE & ND
Message-ID: <01BD2762.F801FCC0@SA5399-3-19.stic.net>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

On jhahn@bellatlantic.net, Jeff & Bea Hahn[SMTP:jhahn@bellatlantic.net] wrote:
> I discovered I still need DE & ND for WAS-CW. I would appreciate
> hearing from hams in those states who would be willing to set up a
> schedule.

>
> Thanks es 73.
>
> Jeff Hahn, KR4YS
>
>
>

Doesn't everybody! Actually I think my last two states were WY and VT.
GOOD LUCK!

73, Kevin
WB5RUE

Date: Thu, 22 Jan 1998 19:16:57 -0800
From: Charles Kadesch <chas@digizen.net>
To: rohrwerk@pconline.com
Cc: qrp-1@Lehigh.EDU
Subject: [1699] Re: Poor Man's Spectrum Analyzer?
Message-ID: <34C80BA9.10C3@digizen.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

John Seboldt wrote:

> Anyone have experience with WA2PZO's "Poor Man's Spectrum Analyzer"...

Hi John: I have used one for several years. A nice piece of gear based on a swept TV type tuner and displaying the spectrum on an oscilloscope. Really fun to see all the local FM and TV stations displayed at one time and a great monitor for band openings. Mine has the optional tracking generator which allows a swept input signal while displaying (in synch) the output of a circuit so you can actually "see" the response bandwidth. I can set the receiver selectivity on mine at 15, 55, and 250 (khz). The digital display option is a worthwhile addition. You can use the unit as a receiver by turning off the sweep and tuning manually. Overall, I find it to be a very handy piece of equipment in the shack and on the bench.
-72 de Chas W3KC-

Date: Thu, 22 Jan 1998 17:57:41 -0700 (MST)
From: Chris Trask <ctrask@primenet.com>
To: Glen Leinweber <leinwebe@mcmail.cis.mcmaster.ca>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [1700] Re: Elmers wanted...take charge yourself
Message-ID: <Pine.BSI.3.96.980122175553.13037A-100000@usr04.primenet.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On 22 Jan 1998, Glen Leinweber wrote:

> Would-be homebrewing Gang,
> Now I've seen a lot of posts go by asking for elmering
> articles to be published...."I really want to learn this stuff".
> There's *tons* of good literature out there - you don't have to
> wait for more. Someone mentioned the venerable ARRL Handbook.
> It is really good. And Hayward/Demaw Solid State design for
> the Radio Amateur can't be beat.
> Let me gently suggest that you grab some copper-clad
> board, heat up the soldering iron and go build some of these
> circuits. Just DO IT!
> So you say that you don't have any test equipment?
> Well, you have more than you may think. When you build a VFO
> you can listen to it on one of your receivers. How stable
> is it? How does temperature affect frequency? If I load it's
> output down, how far does the frequency shift? Try keying it
> on and off...does it chirp? Listen for the 2nd harmonic...
> the third harmonic...how strong are they?
> I'll bet you'll get a lot more help from QRP-L if
> your questions are of the type: "I can get a FET to
> oscillate, but substituting a 2N3904 won't work, why?",
> rather than a plea of "I want to build a radio, where do
> I start?".
> If you've built one of NORCAL's kits successfully, you've got
> enough experience under your belt to tackle true homebrew. The
> books are there: read 'em....and BUILD 'EM.
>

A VERY hearty AMEN, especially for the "Just DO IT" and
"read 'em....and BUILD 'EM." I would not be where I am now if it
wasn't for that attitude.

,-----
 / What's all this \
 / extinct stuff, anyhow? /
 \
 _ |/
oo\
|

Circuit Design for the
RF Impaired

Chris Trask / N7ZWY
Principal Engineer
ATG Design Services

"Think you can, think you can't: either way you're right!" Henry Ford


~~~~~  
-----  
Date: Thu, 22 Jan 1998 17:19:11 -0800 (PST)  
From: Monte Stark <ku7y@sage.dri.edu>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [1702] Re: Elmers wanted...take charge yourself  
Message-ID: <Pine.SUN.3.90.980122170128.29387E-100000@vortex>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi All,

Well, I agree and disagree!!

Yes, you need to get a "do it" attitude. But it sure would be nice for examples to be shown along the way.

What little I know I learned by doing. This is very true. But had there been a little more guidance it would have gone faster and I think I would have learned more.

It is true that no one can open someones head and pour in the information!

But where I think there is a lot of room for improvment is in how the information is presented.

As some portion of theroy is explained, a circuit is shown to show that point. Then another different circuit is shown to point out something else.

By the time you get done, you don't really know how to handle the question you have because nothing was ever completed!

Where I think something like this should go is to start with designing a simple circuit, like the audio amp. Explain how each parts value was derived. Then build the unit and show what voltages should be where and why. (Again, same circuit).

Show how to trouble shoot that same circuit. And just carry this method through a whole project.

It's like teaching someone how to program. You can show them how to print to the screen, write to a file or make a loop. But until they find out how to put it togeather they can

never write a program.

Am I making any sense?? :-)

Another area where I see a BIG, BIG need..... Explain the basics of trouble shooting by showing how to do only one thing at a time! I see this in the work place a lot. People will make 6 changes to something and then check to see if it works. When it does, they just guess at what was wrong!!

Anyway, that's what I think is needed. Along with some simple test equipment and how to use it!

Too many "simple" electronics books are like a DOS manual.... they are great AFTER you know what you are doing but you sure can't LEARN from day one with them!!

OK, off my soap box.....

73, Ron, SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----  
Date: Fri, 23 Jan 1998 01:40:06 +0000  
From: Peter Larsen <larsenp@cadvision.com>  
To: shurst@magiclink.com  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [1703] Re: Morse code in a song  
Message-ID: <34C7F4F6.38DBC4D2@cadvision.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

If it were country and westren, you would get your  
dog back, your girl back, and your truck would  
still run.

Peter

-----  
Date: Thu, 22 Jan 1998 20:50:22 -0500

From: Ed <edn4pk@VoyagerOnline.net>  
To: QRP <qrp-1@Lehigh.EDU>  
Subject: [1704] FT37 Core Neede  
Message-ID: <34C7F75E.21329479@VoyagerOnline.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

The title says it all. Am in the process of doing a mod to my trusty Century 21 and am in need a of a FT37 core. If you have such a device please let me know so that I can finish this project and make a general report to the list. This mod is for an amp placed b4 the rf mixer. Next mod will be an audio derived AGC. I will keep you posted. BTW only need 1 of the cores. Tnx hpe to hear u all on the air....Ed N4PK .. from beautiful downtown Chickamauga, Ga.  
p.s. biscuits 'n gravy, fried chicken and pinto beans...yum  
yum....

-----  
Date: Thu, 22 Jan 1998 18:49:11 -0700 (MST)  
From: Joe Gervais <vole@primenet.com>  
To: qrp-1@Lehigh.EDU  
Subject: [1705] Re: Elmers wanted...take charge yourself  
Message-ID: <199801230149.SAA28519@usr05.primenet.com>

Howdy,

A little scenario for the "Just Do It" crowd.

Point very well taken on needing to just "get in there and do it". Heck, you've got to build to learn! And given enough \*time\* and smoked parts, anyone can probably master the basics of scratch building on their own. Absolutely true!

Now bear in mind my emphasis on the word 'time'. Sure, without the Rosetta Stone, Egyptologists would have eventually cracked the "code" of heiroglyphics (sp?). May have taken dozens of extra years, but they could have done it. But because they had the Rosetta Stone, they were able to leap ahead in their understanding, and devote those resources instead to whole new vistas of the Egyptian culture.

Consider the following story. Joe D. Ham has a fulltime job and puts in lots of overtime. He likes to spend time with his family as well. That's very important to him. Then there's the yardwork, helping kids with their homework. And on and on and on. Somewhere in there he manages to squeeze in a few scant hours for ham radio each week.

Now, assume Joe D. Ham will need K hours of experimenting to become proficient if he does it alone. If he was a student living at home, or retired, or had no family, those K hours could get racked up pretty fast! But alas, Joe D. Ham works, supports a family, and has many many many obligations. To make matters worse, he doesn't have an EE degree or background. Knocking out those K hours could take the better part of his working lifetime! Poor guy may as well wait 'til he retires! Or at least 'til the kids go off to college! He puts HB on hold indefinitely, in favor of other ham-related activities.

What a shame....

Priorities, you say. Sure, spend less time with the kids. Let the yard go. Don't work so hard for that promotion. Stay off the air. The "rest of us" say there has to be a better way!

Now take Joe D. Ham and give him AN EDGE! Give him the "jump-start" info he needs to \*comprehend\* how a radio works, stage by stage, circuit by circuit, in plain English, in his own mind! Walk him through slowly, delicately, clearly, step by step. Fill in the Missing Link in HB evolution! Give Joe D. Ham the Rosetta Stone of HB!!!

Now when he looks at a formula he'll know why it matters! He'll know why that LC circuit is between the antenna feed and the '602! Having a clear, PLAIN ENGLISH picture of what various stages and circuits are \*supposed\* to do and \*why\*, and \*how\* varying those values will impact the circuit, Joe D. Ham is now years ahead of where he would have been otherwise.

Suddenly John D. OtherHam hears about this 'Rosetta Stone' of HB. He's always wanted to build his own radios, but figured it was hopeless because the learning curve was so steep and he too lacked the free time to invest in unguided experimenting. But he knows Joe did it, and Joe's busier than

he is! He grabs a copy of the Rosetta Stone and is on his way to a happy, productive hobby in HB, years before he thought he'd be able to.

Some folks come to this naturally, like CW. Others don't. I decree that the HB Rosetta Stone will open up an entire new world to more hams than ever before. All they need is some help in getting over that first horrendous barrier. It's real, it's there, and in this day and age many folks just don't have the free time to tackle it brute-force. Others are just plain intimidated and just need the right gentle hand guiding them along.

All they need is a catalyst....

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"If it ain't fun, you ain't doin' it right!" -The AZ ScQRPions

-----  
Date: Thu, 22 Jan 1998 17:52:44 -0800 (PST)  
From: Doug Faunt N6TQS +1-510-655-8604 <faunt@netcom.com>  
To: qrp-l@Lehigh.EDU  
Subject: [1706] Re: [1644] Re: Morse code in a song  
Message-ID: <199801230152.RAA27851@netcom14.netcom.com>

Check out this "Morse in the Movies" web page:

<http://web.idirect.com/~rburnet/movies.html>

I found it when looking up the news clips on the BBC about the UK coastal stations stopping the 500kc watch at the end of the year. 73, doug

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Date: Thu, 22 Jan 1998 20:51:03 -0800  
From: LYN WILLIAMS <designserv@ipass.net>  
To: "qrp-l@Lehigh.EDU" <qrp-l@Lehigh.EDU>  
Subject: [1707] RF volt meter  
Message-ID: <34C821B7.E56D6454@ipass.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Mike Maiorana:

There are rf voltmeters and then there are RF voltmeters and rf  
VOLTMETERS ---

To benefit from a meter you need to be aware of the shortcomings and  
limitations as well as how it responds to the type of signal you are  
measuring. This implies that you must know the type of signal -- is it  
a single frequency, full cycle sine wave without a DC component, or  
could it possibly be a clipped or other distorted signal imposed on some  
DC bias? In addition, what is the impedance of the meter and does it  
detune the circuit you are measuring? What is the frequency response of  
the meter?

According to your previous email, you already own a meter which can  
answer all  
these questions and tell you exactly what you are looking at -- your  
100MHZ scope  
should do a very fine job of looking at the signals in an hf rig. You  
just need to brush  
up on the relationship between peak-to-peak voltages and whatever terms  
you wish  
to report the measurement in. In addition, since you probably have a  
good high-impedance probe with low capacitance input, you can  
probably use it without undue influence on your circuit.

In my previous mail, I didn't realize you were working on a unit  
which had never  
been aligned. Sorry 'bout that. Good luck and please holler if we can  
help.  
72, Lyn  
W4WDN

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Date: Thu, 22 Jan 1998 20:04:53 -0600 (CST)  
From: Adrian Weiss <aweiss@sunflowr.usd.edu>  
To: QRP-L@fidoi.cc.lehigh.EDU  
Subject: [1708] RE: Test Equipment  
Message-ID: <Pine.SOL.3.94.980122200226.18016B-100000@sunburst>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Noticed this thread -- building simple test equipment, r.f. probe and the  
like. Just a reminder that I cover this in Chapter 8 of JOY OF QRP along  
with the theory. Focus is primarily on r.f. measurements. Many of the  
questions coming up are answered there

73, Ade W0RSP

-----  
Date: Thu, 22 Jan 1998 09:07:04 -0500  
From: Paul Helbert <phelbert@rica.net>  
To: edn4pk@VoyagerOnline.net  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [1709] Re: FT37 Core Neede  
Message-ID: <34C75288.2E7C27D2@rica.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Ed,

You did not state what mix you are looking for. I have the FT37 in 43 and 63 ferrite. Let me know if it's one of these you need, and I'll get one off to you in the morning. Address?

73,

Paul, Wv3j

-----  
Date: Thu, 22 Jan 1998 18:07:31 -0800 (PST)  
From: Doug Faunt N6TQS +1-510-655-8604 <faunt@netcom.com>  
To: bachmann@ari.net  
Cc: ekdave@earthlink.net, qrp-1@Lehigh.EDU  
Subject: [1710] Re: [1624] Small Wonders WM-20 SSB mods & tips?  
Message-ID: <199801230207.SAA29815@netcom14.netcom.com>

Date: Wed, 21 Jan 1998 21:42:13 -0500  
From: Rich Bachmann <bachmann@ari.net>

Dave,

BTW: Ten-Tec makes a #1551 speech processor kit for \$12. Analog Devices makes a microphone preamp chip with variable compression and noise gating, it is SSM2166P (14 pin dip). The SSM2165 is an 8 pin version with unity

buffer gain and a preset noise gate threshold.

Dave and I have been discussing this in email, since I also ordered a WM-20 a couple of weeks ago. I think the hack for adding CW to the Epiphyte in the Winter '97 QRPp (and SPRAT #93) looks good, but there has been a mention that generating CW by audio injection into the audio path may be illegal. That hack uses a TICK and runs the sidetone audio through a low-pass filter to the audio input, and a "smoothed" key output to the PTT line for semi-breakin.

I am slightly partial to the K1MG frequency display, and another option might be the KC-2. Opinions on this are solicited.

On the audio processor front, the Ten-Tec web page lists it still, but as the "155I" not "1551" (letter I instead of numeral 1).

73, doug

-----  
Date: Thu, 22 Jan 1998 20:38:26 -0600 (CST)  
From: Adrian Weiss <aweiss@sunflowr.usd.edu>  
To: QRP-L@fidoi.cc.lehigh.EDU  
Subject: [1711] RE: Effective antenna height and dirt.  
Message-ID: <Pine.SOL.3.94.980122200553.18016C-100000@sunburst>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi gang:

Maybe someone already point this out and I paged past it bleary-eyed.

Two areas of dirt are important.

1) The impedance of the antenna due its height above ground refers to the dirt right under the antenna. The downward-radiated wave reflects at some point in the dirt and returns up to the antenna to add to the radiated wave going vertically upward. A phase difference occurs between wave one heading for the ground and reflecting back upward, and the next wave that will be leaving the antenna vertically. Hence a phase difference occurs. That is why the "radiation resistance vs. height" graph is not just a straight line, but wriggles sinusoidally above and below about 75-Ohms as the height moves from ground up thru a peak at 0.4-wave height, to a node at 0.55-wave, back up to 85-Ohms at 0.7-wave height and so on. As far as radiation pattern, e.g. angle of radiation, in the vertical plane is concerned, the dirt under the antenna only affects the vertical \*and nearly-so) radiation from the antenna straight up. Who cares about that?



An old trick of re-focusing more of the radiated energy at extremely high angles of radiation is to, most simply, stretch a single wire right under the antenna and above ground -- thereby establishing a height above ground. For high-angle enhancement, wires can be strung under the antenna at selected vertical angles relative to the vertical plane. Two goals are thus achieved -- height above ground pretty well controlled, and vertical radiation pattern re-focused.

Depth of penetration also determines ground-loss. Poor dirt allows greater depth of penetration. On sand, it is difficult to establish just where "ground" (where the reflection occurs) is. So for poor dirt. But, no problem in terms of loss of radiated power in either case. The power absorbed by the dirt under the antenna is subtracted from the vertical radiation and very high angles.

What we are usually interested in is working long distances using low angles of radiation under 50-deg or so. This is not always the case. Local nets on 80m with QNI's just beyond ground-wave range actually depend upon the extremely high angle radiation. (Like from here to Sioux City). The conductivity of the dirt becomes increasingly important as you move away from the antenna and the angle of the downward-wave reflection approaches 50-deg (taking that as the desirable high limit). The same principle applies as to the vertical wave. The depth of penetration and hence reflection point varies with the conductivity of the ground and frequency -- significantly different penetration for different frequencies. Loss becomes a significant factor here. If, for example, the downward wave at 32-deg, given the electrical height of the antenna (use some trig to figure out out far away from the antenna that point is), hits the dirt at a grazing angle. The distance from the surface to the depth of penetration point, and back up to the surface, requires that the wave travel thru dirt for a while, occasioning power loss thru absorption. A near-perfect reflecting surface at the reflection, i.e., sea-water, will exhibit almost no penetration, and hence no loss. Dirt with a ground-conductivity of 30 is your next best reflector and least penetration (depending, remember, on frequency). As for watering the ground under the antenna, that would seem to make great sense. Unfortunately, the depth of penetration in fresh water is incredibly deep. (Note you lake-type sailors using a horizontal antenna from a boat!). In other words, a waste of water and power. We are basically stuck with the conductivity of the surrounding the antenna in the radius around the antenna location which produces ground reflections in the range of angles of interest. Naturally, if a nice several acre metal factory building is sitting on the area of dirt needed to produce a radiation angle of 28-deg in some direction, cancel that path. But, given the distances etc., a single factory building is not going to subtract much more than a few minutes of coverage for the pattern. So much for the near-field.

At each reflection point where the wave returns to earth from the

ionosphere, the same principles are in operation. If the first skip point is out in the Atlantic, nearly no reflection loss. If you are sitting on the beach on the east coast of FL and putting out a fairly high angle lobe, the chances are good that no loss occurs in the near-field which is sea-water, and the first skip point, which is also sea-water. However, if you are east coast USA shooting for the far east, your first skip point will be on U.S. dirt -- bouncing off the sand around Las Vegas is a lot worse than taking the much less severe "hit" that would occur at a higher angle bouncing off the primeval topsoil of IA with its 30 gnd conductivity. Things get kind of complicated. Diff. kinds of dirt causes diff. degress of phase-shift etc. all of which can be additive or subtractive from the desired direction/path.

Geeez -- I can't seem to stop once I get going.

I agree that watering the trees is the only sane thing to do. Environmentalism aside, we QRP'rs have got to realise that cutting down trees is th worst evil that exists. Every living (and some dead ones) tree is a potential antenna mast waiting for some QRP'r to come along and say, "Wow! get out the slingshot." So, we must unit to combat the evil forces of greed which drives developers and lumber-types to cut down our masts wholesale!!!

geeesh .. it's getting worse -- I'm out of here!  
73, Ade

-----  
Date: Thu, 22 Jan 1998 21:53:30 EST  
From: victnr@juno.com (Victor E Turner)  
To: RangerSF5@aol.com  
Cc: qrp-1@Lehigh.EDU  
Subject: [1712] Re: CW FOEVER AND EVER  
Message-ID: <19980122.204949.7335.0.Victnr@juno.com>

Bravo!  
WA6EIW Vic Turner  
On Wed, 21 Jan 1998 21:54:27 EST RangerSF5 <RangerSF5@aol.com> writes:  
>You must have at times,thought into the past,  
>where some things go out while others last  
>What comes to my mind is the old Morse code,That has weathered the  
>storms from  
>any abode.  
>To talk with ones fingers is surely an art,Of any info you care to  
>impart,In  
>most conditions the signals get through,

>While the same about phone is simply not true.  
>Thoes dits and dahs cut through the trash,Of near by noise or  
>lighting's  
>crash.  
>To the sensitive ears of the hams receiver,Who records this data with  
>ardent  
>fever.  
>He knows he's doing something unique,(in such poor conditions,thats  
>quite a  
>feat)  
>To roger the message thar came off the air,These brass pounders sure  
>do have  
>that flair.  
>They say Morse ops are a dying breed,  
>But don't despair,there's always that need,  
>That when conditions get rough for the new automation,  
>Be rest assured,there'll be need for your station.  
>CW is dying?believe it never,This mode will be 'round forever and  
>ever.  
>But one thing is sure ,what we really need,  
>Is to relay our knowledge to the younger breed.  
>To carry the torch,long after we're gone,  
>To send Morse Code thru the air like a song.  
>When at last,Silent keys pull that lever,  
>We can rest in peace,it's CW forever  
>  
>Jim Hatherley,WA1TBY 7/4/85  
>  
>Submitted to me from Betty A. Broome, VE3ZBB Re:our 2 way qrp qso  
>12/26/97/7.037  
>Mode CW,4 watt rst 589  
>Bob WA2HOQ  
>QRP-L #1437  
>  
>

-----  
Date: Thu, 22 Jan 1998 21:25:58 EST  
From: K5BDZ <K5BDZ@aol.com>  
To: w6toy@pop.erols.com  
Cc: QRP-L@Lehigh.EDU  
Subject: [1713] Re: Houston Livestock Show & Rodeo  
Message-ID: <1611690a.34c806c2@aol.com>  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Hey Bruce

Well the speakers we get are not measured in Ohms...rather in soprano, basso, alto, tenor, or monotones! The Houston Livestock Show & Rodeo has over 12,000 dues paying members, over 5,000 active member volunteers, and provides over \$4,000,000 each year in college scholarship monies and education grants to Texas students going to Texas state supported colleges and universities. The Rodeo Speakers Committee is made up of about 205 members who make speeches to schools, businesses, etc. worldwide, throughout the year, on various subjects concerning cowboys and the west...including many states other than Texas. We use examples from yesterday, today, and a few from the future. See, you almost tricked me into giving you a speech... Like my daughter says, "Dad, we only asked you what time it was, not how to build a clock!"

Thanks for asking Bruce,  
Bill, K5BDZ

-----  
Date: Thu, 22 Jan 1998 21:44:15 -0500  
From: William Keith Hibbert <wb2vuo@frontiernet.net>  
To: qrp-l@Lehigh.EDU  
Subject: [1714] VHF/UHF CW?  
Message-ID: <199801230244.VAA87548@node21.frontiernet.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

In the Win95/Win3.1 disaster over here, I lost some of my older files, and have misplaced who was talking about a CW-only VHF/UHF contest. Does anyone remember who posted the info on the test, or was the possibility of organizing such a contest being discussed?

Drop me a line directly if you can help me out with this.

72/37, Keith, WB2VUO, 100% QRP from the Great Bergen Swamp in WNY  
"My night light runs more power than my Rig!!!"  
72/73, Keith, WB2VUO 100% QRP From the Great Bergen Swamp in WNY  
ARRL Life Member, QRP-L #582, ScQRP #40, ARQRP #68  
Trustee, NQ2RP/B 10 Mtr Milliwatting Beacon: 125 mW at 28.287 MHz  
"My night light runs more power than my Rig!!!"

-----  
Date: Thu, 22 Jan 1998 19:17:29 -0800  
From: Robert Bayha <rbayha@ix.netcom.com>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [1715] Re: Elmers wanted...take charge yourself  
Message-ID: <34C80BC9.8DA5D1CD@ix.netcom.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

>From one who would be on the "receiving" end of this type of Elmering, I agree with you wholeheartedly, Joe. Having most of the responsibilities you mention including company travel, makes it almost impossible to regularly participate in local clubs or do any "extra-curricular" activities on a regular basis. This Elmering proposal would solve that for me! I can access the list anytime even when I'm on the road; therefore I can participate as time allows. If those that want me to "to just do it" are serious, then it's probably just too big of a hurdle when there are so many other responsibilities to consider. The things floating around this list have interested me ever since I was a teenager, but never got around to "just doing it". So, now that I see a really viable, and what looks like a really enjoyable way of approaching it, it just may happen with the help that keeps flowing forth from this list. Why does everyone think that the Ham ranks are getting smaller (I think)... I propose that many of the reasons are being discussed in this recent thread. Just my two cents worth!!! Thanks to Joe and Ron for their support of this idea.

P.S. I'd love to "just do it", but I'd like to know what in the hell I'm doing!!!

Joe Gervais wrote:

>  
> Howdy,  
>  
> A little scenario for the "Just Do It" crowd.  
>  
> Point very well taken on needing to just "get in there  
> and do it". Heck, you've got to build to learn! And given  
> enough \*time\* and smoked parts, anyone can probably master  
> the basics of scratch building on their own. Absolutely  
> true!  
> -----snip-----

--

Bob Bayha, K6RKB  
QRP-ARCI #9505, CQC #488  
G-QRP #9884, NorCal #2394  
QRP-L #1209

-----

Date: Thu, 22 Jan 1998 19:22:30 -0800  
From: Robert Bayha <rbayha@ix.netcom.com>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [1716] Re: Elmers wanted...take charge yourself  
Message-ID: <34C80CF6.F6D0238A@ix.netcom.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

> Please put one check mark in the agree column!  
>  
> Monte Stark wrote:  
> >  
> > Hi All,  
> >  
> > Well, I agree and disagree!!

-----snip-----  
>  
> --  
> Bob Bayha, K6RKB  
> QRP-ARCI #9505, CQC #488  
> G-QRP #9884, NorCal #2394

--  
Bob Bayha, K6RKB  
QRP-ARCI #9505, CQC #488  
G-QRP #9884, NorCal #2394

-----  
Date: Thu, 22 Jan 1998 22:22:05 -0500  
From: Thomas J McCuen <TMcCuen@compuserve.com>  
To: "INTERNET:n1wcc@juno.com" <n1wcc@juno.com>, QRP-L Lehigh Server <qrp-l@Lehigh.EDU>  
Subject: [1717] 38s enclosures  
Message-ID: <199801222222\_MC2-3055-C8CB@compuserve.com>  
MIME-Version: 1.0  
Content-Transfer-Encoding: quoted-printable  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Disposition: inline

I thought all the custom 38s enclosures were mailed out last week..  
Anybody from Massachusetts order or get one yet??  
Aro1 N1WCC

Haven't got mine yet either.....(NY)...

Sent a query to SLMach re same but no reply as of this date.

still waiting too!!

Tom aa2vk

-----

Date: Thu, 22 Jan 1998 22:43:23 -0500 (EST)  
From: bruce muscolino <w6toy@pop.erols.com>  
To: vole@primenet.com  
Cc: QRP-L@Lehigh.EDU  
Subject: [1718] Re: Elmers wanted...take charge yourself  
Message-ID: <2.2.16.19980122233413.2a57d7b2@pop.erols.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>  
>Point very well taken on needing to just "get in there  
>and do it". Heck, you've got to build to learn! And given  
>enough \*time\* and smoked parts, anyone can probably master  
>the basics of scratch building on their own. Absolutely  
>true!

>  
You're missing the point. If you don't do it it won't happen. It matters not whether you build three circuits a night or one circuit every three years. Unless you invest the time in doing AND making mistakes you will never be more than a wannabe.

Since everyone is worried to death about whether or not what they build will work, pick something that mostly can't fail. Try this:

Go find or buy a manual for an HW7, or an HW8, and start collecting parts. Get a piece of perf board and start laying out the circuit for the receiver. No, it doesn't have to work on three bands, pick one -- 40, say. Build it and make it work. With the manual you should be able to do it without too much trouble. Then add the other half. Once you've done that, scale the tuned circuits and move it up to 30, or 20. I guarantee you, by the time you're done, you'll know a heck of a lot about building! One of the very first QRP style projects I ever built was a receiver that was cross between an HW7 and a MAVTI40. Actually they really only differed in the way they connected the product detector to the audio amp. I still have it and I'm pleased to say it still gives a decent account of itself.

You can read, and read, and read, and you guys all know how big an advocate of that I am, but, if you don't do something with it, you'll be an armchair

homebrewer forever.  
It's JUST NOT THAT HARD.

73

-----  
Date: Thu, 22 Jan 1998 23:29:39 -0500  
From: ckrelic@usaor.net  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [1719] Re: FS: Radios  
Message-ID: <34C81CB3.1A6937E1@usaor.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Well TNX gang for ALL the replies the  
OHR100A is sold. Still have the Century/21  
that not one soul is interested in, HMmmm  
must be all the Great kits they are offering  
these days!

73/72 Curt  
K3ivb  
QRP-L #433

ckrelic@usaor.net wrote:

> One unbuilt 40 meter OHR100A \$80 shipped  
>  
> Century/21 analog, calibrator, recent factory service  
> Very clean 21! \$195 OBO  
>  
> Curt  
> K3IVB

-----  
Date: Thu, 22 Jan 1998 23:43:58 -0500  
From: "Craig Lund" <clund@bestweb.net>  
To: <qrp-l@Lehigh.EDU>



Subject: [1720] WTB Vintage ARRL Handbook  
Message-ID: <199801230449.XAA15945@miro.bestweb.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

Hello, All:

I am still looking for a couple of ARRL Handbooks.

Specifically I am interested in one from the 1950's and another from the 1960's

If you have one or both in reasonable shape and want to turn it into some cash please call me with price and condition.

Thank you

Best 73's

Craig

clund@bestweb.net

-----  
Date: Fri, 23 Jan 1998 12:53:53 +0800  
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>  
To: qrp@pandora.lugs.org.sg  
Subject: [1721] Fox Schedule  
Message-ID: <34c82261.pandora@pandora.lugs.org.sg>

Hi,

Can someone send me the up to date Fox schedule. I think I am going to give it a shot from this side of the world and see if I'll get lucky.  
Thanks.

73 de 9V1ZV Daniel

--  
+-----+-----+  
| Daniel Wee | daniel@pandora.lugs.org.sg |  
| 9V1ZV | |  
| QRP-L #667 | 9V1ZV@amsat.org |  
+-----+-----+

-----  
Date: Fri, 23 Jan 1998 12:57:09 +0800  
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>  
To: qrp@pandora.lugs.org.sg  
Subject: [1722] Reciprocal propagation  
Message-ID: <34c82325.pandora@pandora.lugs.org.sg>

Hi,

Today, on my way home, I was thinking about reciprocal propagation. The scenario is given below.

Setup: 2 similarly setup stations, same kind of radio, same output power, same length of feed, NOT NECESSARILY SAME TYPE OF ANTENNA SETUP.

Condx: Minimal QRM, Usual QRN (no freak propagation).

Now, given such a setup, would it be true to say that both stations would hear each other at approximately the same average signal strength? Or, would one station hear the other better, perhaps as a result of a more directional antenna (better S/N)? Thanks.

73 de 9V1ZV Daniel

--

```
+-----+
| Daniel Wee | daniel@pandora.lugs.org.sg |
| 9V1ZV      |                               |
| QRP-L #667 | 9V1ZV@amsat.org             |
+-----+
```

-----  
Date: Fri, 23 Jan 1998 05:05:13 GMT  
From: mwattcpa@earthlink.net (Marty Watt)  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [1723] Re: Elmers wanted...take charge yourself  
Message-ID: <34c8201b.160386864@mail.earthlink.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: quoted-printable

On Thu, 22 Jan 1998 22:43:23 -0500 (EST), bruce muscolino  
<w6toy@pop.erols.com> wrote:

>Since everyone is worried to death about whether or not what they build =

will

>work, pick something that mostly can't fail. Try this:

>

>Go find or buy a manual for an HW7, or an HW8, and start collecting = parts.

>Get a piece of perf board and start laying out the circuit for the = receiver. No, it doesn't have to work on three bands, pick one -- 40, = say.

>Build it and make it work. With the manual you should be able to do it = without too much trouble. Then add the other half. Once you've done = that,

>scale the tuned circuits and move it up to 30, or 20. I guarantee you, = by

>the time you're done, you'll know a heck of a lot about building! One = of

>the very first QRP style projects I ever built was a receiver that was = cross

>between an HW7 and a MAVTI40. Actually they really only differed in the = way

>they connected the product detector to the audio amp. I still have it = and

>I'm pleased to say it still gives a decent account of itself.

>

>You can read, and read, and read, and you guys all know how big an = advocate

>of that I am, but, if you don't do something with it, you'll be an = armchair

>homebrewer forever.

Gang,

I think Bruce hit it on the head with this one. As (\*ahem\*) = communicators, we

sometimes miss the point. What those of us (including me) ask when we = say

"What do I do?" or "How do I start?" is in fact the same as "What is = this

'it' we keep hearing about when people tell us 'Just Do It!?'". (This = momentous

conclusion I have just now thought of -- Bruce's message triggered = something

of a "Eureka!" response in me just now)

That simple "it" is so broad, and the hobby so diverse, that "it" could = be

anything, and not even the novice builder knows what he wants to build!

Analogy: Instead of homebrew electronics, I want to learn math. So, can=

I  
"just do math?" No -- our teacher tells us what the elemental components=  
are,  
and how they work. Perhaps our teacher is a book -- which is your =  
suggestion  
above. Well, we need help in determining \*which\* book. You're correct =  
-- we  
need an HW-x schematic and/or manual. We do \*not\* need the fully =  
synthesized  
digital textbook (like the one discussed some time back on this very =  
list).

What is important here, and I want to really reinforce this, is that the  
proper answer to the question "I want to build something -- where do I =  
start?"  
is \*not\* "Just build something". It is, as Bruce tells us, "Why not try =  
..."

My experience is that deciding what "it" is in fact is half the battle! =  
Once  
"it" is determined, the remainder of the course is somewhat obvious. For=  
me,  
"it" was a 38 special, that if some recall, didn't work. I was prepared =  
to  
surrender -- but encouragement on this list, people who told me where to  
\*start\* to debug the thing, helped me create the RF-producing instrument =  
I  
needed! Then, I build an OHR WM-2, then a St. Louis Tuner, then a St. =  
Louis  
Vertical, now (hopefully) paddles. I've built a CMOS II SuperKeyer =  
sometime  
back.

But without some initial direction, I'd still be asking "How do I get  
started?"

Make sense? I hope so!

-----  
Date: Thu, 22 Jan 1998 22:27:19 -0700 (MST)  
From: Joe Gervais <vole@primenet.com>  
To: w6toy@pop.erols.com  
Cc: qrp-l@Lehigh.EDU  
Subject: [1724] Re: Elmers wanted...take charge yourself

Message-ID: <199801230527.WAA02486@usr06.primenet.com>

Howdy Bruce (and Folks),

Bruce (W6T0Y) wrote:

>

> You're missing the point. If you don't do it it won't happen. It matters  
> not whether you build three circuits a night or one circuit every three  
> years. Unless you invest the time in doing AND making mistakes you will  
> never be more than a wannabe.

Absolutely. You have to build to learn. The point is how well that time is invested. If it's possible to invest 100 hours with proper instruction and end up as proficient as if you'd invested 1000 hours unguided, homebrewing becomes that much more accessible and desirable. There's no free lunch, but you shouldn't have to buy a \$10 hot dog when a \$2 sandwich is just across the street.

Remember, there's a reason that surgeon candidates have extensive internships under the watchful helping eye of a resident surgeon. Yes they could learn by botching a few hundred operations, but it's much more effective to be mentored, step by step. Saves alot of lawsuits. ;-)

Example: You've never been downhill skiing in your life. There are two ways to learn. 1) I can stick you on top of the mountain with skis on your feet. See ya at the bottom. 2) I take you on the "bunny" slope and in a very friendly, effective manner help you down your first gentle run, and we build on that small success together, each time trying a new skill and working our way up to the more advance runs.

At the end of the day, skier #1 and skier #2 are both at the bottom of the hill. Now, who do you think learned more effectively? Who do you think truly enjoyed themselves and learned the most? Odds are the Bunny Slope skier is going to become \*much\* better \*much\* faster.

Of course they'll have to build. The only question is whether it's more \*effective\* to take them on the "bunny slopes" of HB and go from there, or drop them off at the top of the mountain.

Some will do fine from the mountaintop, and that's great. But I say it's time we gave some attention to

those folks who \*really\* want to learn, but are terrified of the top of the mountain. Let's go take 'em down the HB bunny slope a few times and get 'em started right!

Before long we'll transform every ham into a QRP operator/builder! Resistance is futile! :-)

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"Donuts! Is there anything they can't do?" -- Homer Simpson

-----

Date: Fri, 23 Jan 1998 01:03:33 -0500  
From: Ken Newman <n2cq@comten.com>  
To: QRP-L@Lehigh.EDU  
Cc: njqrp@njqrp.org  
Subject: [1725] RE: Dan's NW8080 (Long)  
Message-ID: <1.5.4.16.19980123060144.1ebf7882@mail.comten.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Jeff's Info From QRP-L digest:

-----

Date: Tue, 20 Jan 1998 14:22:22 -0600  
From: "Jeff M. Gold" <JGold@tntech.edu>  
To: QRP-L <qrp-l@Lehigh.EDU>  
Subject: [1499] Dan's NW8080  
Message-ID: <34C5077E.73D82A35@tntech.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7bit

Good afternoon all.

well these are comments, not complaints. I went into the purchase of the kit knowing pretty much what to expect.

I started on my NW80, 80 meter kit that I got for Christmas. It was one of the special deals with RS enclosure included. The board isn't too badly screened, but there are a number of mislabellings on it. The page of corrections to the board and instructions seemed real straight forward. I marked them on the board and in the manual. Some

mislabelling, and some missing traces. I was disappointed to find a number of used parts, still with the solder on them. The crystals were all of different brands and probably real different in characteristics. The small board for the audio filter is not screened at all, and haven't seen anything like it in quite a while (you interpet).

The board didn't have holes drilled, nor did I get hardware to mount the main tuning cap. I just drilled a couple of holes and used two of the standoff bolts and put a wire from the ground hole to one of the screws. Finished off the VFO section. After I took one winding off the coil, it came up right on frequency.

Think this kit will be a challenge.

think about a year ago I built one of the Dan's NW8020, after corrections it worked real well.

72,

Jeff, AC4HF

--

Jeff M. Gold, Manager  
Academic Computing Support  
Tennessee Technological University  
(615)372-3979

-----  
End of Info

Hi Jeff and Other Dan's Friends,

I was happy to hear how you are doing on Dan's Version of NW8080. I finished a copy from EMTECH on 80 meters and hope you enjoy yours as I do. I also finished a NW20 from Dan's, out of the "Not to be missed" sale at the end of the year. For that price I was suspicious of what came.

When I started, I invetoried the parts. I was delighted that there were no missing parts except the ferite bead which I may have lost myself. I didn't have the used parts with solder you reported. All seem in good shape. The crystals were all alike on mine. The audio filter was not screened but not a problem for that little board. At the end, it had all the right stuff and did a fine job. (Filter). My main board was the same as yours, no holes or hardware for the main Cap. I did the same as you did..

At the point of your post, (Tue), I assume you have done the VFO. The keying circuit had no problems but there are a few missing steps from then on.

RIT Circuit: You end up with no power to R17. You can install Jumper 5 to give it +12, but the schematic sez +5 instead. R13 near R17 has +5 on it so I used the resistor lead to connect the two. I also cut the trace that goes to

Jumper 5 to R17 just in case. My Rit Pot was defective but I had one so no problem.

Audio: No problem. The audio is one of the best features for speaker strength.

Receiver: No mention to install Jumper 1 and Jumper 2. You'll need to.

I also used a 1N4001 for D1 instead of 1N4148. Paul Harden had found this in a rig having key thump. (QRPP Dec 96). Roy used that in my NW80. There wasn't any parts for the meter option.

Transmitter: No problem. The final tank caps had me worried. 2 of the three were very small ceramic caps instead of 3-400 WVC

dipped mica

type. They ran fine at 5 W or a little more. No heating noticed.

Wiring: The part to wire up the +12 volt power jack to the board would not have had power. The +12 v connector positive pin goes to +12 input point as mentioned. The negative pin goes to the ground point,

not the

"+12 SW" that it says.

This is all there was that I came across. Most of the jacks were not what I used. The switch for the filter is a slide switch, and I used a small toggle. Phone jack was 1/4" and I used 1/8". Antenna jack was BNC, and I used UHF type. No power jack was supplied but used one from R/S. The only jack I used was the RCA jack for the external speaker.

After tuneup, I would say I am totally happy with it! The receiver and audio is more sensitive and powerful than any other. The lack of AVC may be a loss for some but, for CW, the AVC goes off on my TS-850s also. Much quieter in general. Really hot!

Last is the sidetone when the filter is on. Be careful when you try it! Turn down the volume all the way else your ears will be ringing until tomorrow. It is normal with the filter off but when on, the volume of the sidetone is unreal.

The easiest way to correct it was to put a .1uf from the input to the filter to ground. Seems like it also quiets the high frequency audio and nearly no loss.

Yes the sidetone is a little stronger but 20+db better. Roy's NW80 has the filter on the input side of the Q1 instead of the output. The results are 100% better yet.

Keep us informed on your progress, Jeff. The 80 m version is hard to keep down to

5 watts. It goes above 10 watts with R14 all the way up. I'd like to hear how you do on the output signal if you have a scope. Mine may need the final tank changed for a cleaner signal on low drive. Looks the best at 10 watts!

72/73,

Ken Newman, N2CQ

Woodbury, NJ

N2CQ@Comten.com

\*Beauty is in the eye of the beer holder.\*

(Bumper Sticker)



-----  
Date: Thu, 22 Jan 1998 23:20:38 +0000  
From: Leon Heller <leon@lfheller.demon.co.uk>  
To: mikemo@ibm.net  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [1726] Re: RF volt meter  
Message-ID: <CoBkMBAGR9x0EwSA@lfheller.demon.co.uk>  
MIME-Version: 1.0

In message <34C7ABE2.6A8F@ibm.net>, Michael Maiorana <mikemo@ibm.net>  
writes

>Is there an adapter I can build so I can use a regular DVM as an "rf  
>volt meter"?

This is the circuit I use:

```

- C1 ---- R ---- +
    |k          |
    D           C2
    |a          |
-----

```

C1 = 1n  
C2 = 100n  
R = 4M7  
D = Ge diode (gold-bonded is best)

With a 10M input impedance DVM, this will give approx. RMS values.

Leon

--

Leon Heller: leon@lfheller.demon.co.uk <http://www.lfheller.demon.co.uk>  
Amateur Radio Callsign G1HSM Tel: +44 (0) 118 947 1424  
See <http://www.lfheller.demon.co.uk/dds.htm> for details of my AD9850  
DDS system. See " /diy\_dsp.htm for a simple DIY DSP ADSP-2104 system.

-----  
Date: Fri, 23 Jan 1998 06:56:03 -0500 (EST)  
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>  
To: KB9RPD <KB9RPD@aol.com>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [1727] Re: Twist on Elmer Project

Message-ID: <Pine.SOL.3.94.980123064435.8843B-100000@larry>

MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

> title, 'Plain English Electronics Help for the Clueless' "  
> Well, ok, it does sound a little abrasive. Perhaps "Plain English Electronics  
> Help for the Challenged Builder" ? Or, "Plain English Electronics for the  
> Archie".  
> always make the "Electronics Projects for Dummies - a Plain English Guide for  
> Amateur Radio Operators".  
> ;-) Just a lighter side note.

I understand and appreciate the light note in which these were offered.  
However, let me get a little more serious out of 30 years of teaching.

Although a few folks who are easy with themselves enjoy or accept the  
labels "dummy" or "challenged," I suggest using something very  
positive--as well as brief--as a theme title, followed by a more specific  
topic title.

For instance:

Getting a great start: (then topic)

or

Yes, You can. . . (followed by topic title)

[Be careful of "yesucan/yes-u-can," as these are registered TMs.]

Lot's of other positive, success-oriented, and individualized (directed at  
the reader) type titles out there in folks imaginations.

My theory of elmering is to so help the individual that eventually he or  
she can go even further than I have gone--and thus have more to offer the  
next generation of those who need an elmer.

Johnny Mercer aficionados will recognize what song happens to be in my  
head as I write this. | -)

-73-

LB, W4RNL

-----  
Date: Fri, 23 Jan 1998 06:57:11 -0500

From: mikemo@ibm.net  
To: qrp <qrp-1@Lehigh.EDU>  
Subject: [1728] Re: Elmers wanted...take charge yourself  
Message-ID: <34C88597.2F1@ibm.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I feel kind of guilty for starting such a long thread. Please allow me to say a few short things.

- 1) I did "just do it" and ran into trouble.
- 2) I got an incredible amount of help from the fine folks on this list
- 3) I probably picked the wrong kit to start with (Dan's NW80/20)
- 4) I've been able to get it working with the help of list members (so far)
- 5) Not one person who responded tried to make me feel stupid or that I was "out of my league"
- 6) I have an electronics background (digital) so once I got a basic explanation of the circuit I could understand it.

It would have been difficult for someone with no knowlege of electronics to get through this far. A better, more detailed kit would be the right choice.

It sounds like the books may already exist that take you through the radio section by section to teach you the theory. Maybe the beginner needs a kit, one or two of these books, and a "primer" to point him in the right direction throught all these resources.

Thanks to the list, you are my Elmer ;-)

-----  
Date: Fri, 23 Jan 1998 07:34:31 EST  
From: K5BDZ <K5BDZ@aol.com>  
To: K5BDZ@aol.com, qrp-1@Lehigh.EDU  
Subject: [1729] Re: Houston Livestock Show & Rodeo  
Message-ID: <56c50ba1.34c88e59@aol.com>  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

For those of you who have expressed interest, here is the Houston Livestock Show & Rodeo website:  
[www.hlsr.com](http://www.hlsr.com)

Thanks again for all your interest

Bill, K5BDZ

-----  
Date: Fri, 23 Jan 1998 06:03:56 -0700  
From: Jess Gypin <jessqrp@concentric.net>  
To: qrp-1@Lehigh.EDU  
Subject: [1730] Elmering and which kit to buy.  
Message-ID: <34C8953C.2841@concentric.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi all,

I have been watching this thread about elmering and which kits to start with. All of the inputs have been great. A few points...

1. Unless you have a qrp or ham club in your area, or a real live person that can help you, this list is the best thing that you have for help. I would, however, suggest that you seek out the local radio clubs and see if there is help there.
2. The simpler the radio kit the better. A VXO kit like the SST or the 49'r, or the 38 Special are PERFECT for starting out. The latest crop of Pixie's or Tixie's, or whatever are also good. There are two ways to approach the first kit. There are the simpler low power kits and then there are the more high performance and higher power kits. If all you are looking for is learning about the radios and how to build, my vote goes for the simpler and lower power kits. A kit from Dan's is NOT a beginners kit. They are a good value for someone with more experience. The kits from Emtech, OHR, SWL and so forth would be a good choice for the SECOND kit.
3. As an option to that, perhaps a receiver kit like the SWL kits that Tentec offers would be good.

There is no substitute for having someone there to help when building a kit. The very best situation is to get about 10-20 kits and build them as a club with some experienced help. That has been done here locally with great success, even with the Dan's kits. Bear in mind that I am not knocking Dan's kits, they are a great value. They just have used and salvaged parts and the directions are not as clear as some of the other kits.

Just to help explain, the first kit that I built was the A&A Engineering Gary Breed kit. I still have it and it still works! All I got for directions were a copy of Gary's QST article, a schematic and a few sheets on how to wind the toroids and identify the parts. Then a few sentences about stuffing the board and the alignment. It still worked when I got done! The lesson learned here was even though the conditions

were not ideal and the instructions not that great, I still got it built and it worked. There is some value to the just do it method. If you have the desire, go for it.

Bottom line is that the kits are a BUNCH better and that with this groups help, there is a lot that can be done.

Best

--

Jess NOTFI <><

<http://www.concentric.net/~jessqrp>

qrp-1 #1232 CQC #92 1997 Fox

-----

Date: Fri, 23 Jan 1998 08:51 -0800 (PST)

From: eakwik@mail.hac.com

To: qrp-1@Lehigh.EDU

Subject: [1731] Re: Elmers wanted...take charge yourself

Message-ID: <0EN800003P60JW@mail.hac.com>

MIME-version: 1.0

Content-type: MESSAGE/RFC822

Date: Thu, 22 Jan 1998 17:49 -0800 (PST)

From: vole@primenet.com

Subject: Re: Elmers wanted...take charge yourself

To: qrp-1@Lehigh.EDU

MIME-version: 1.0

Content-type: MULTIPART/MIXED; BOUNDARY="Boundary\_(ID\_4jI2znHk+EnqIRo2fXAYRQ)"

--Boundary\_(ID\_4jI2znHk+EnqIRo2fXAYRQ)

Content-type: TEXT/PLAIN; CHARSET=IBM437

My situation is as described by Joe. A couple of hours a week is about it.

Ed

Howdy,

A little scenario for the "Just Do It" crowd.

<snip>

All they need is a catalyst....

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"If it ain't fun, you ain't doin' it right!" -The AZ ScQRPions

--Boundary\_(ID\_4jI2znHk+EnqIRo2fXAYRQ)

Content-type: TEXT/PLAIN; CHARSET=IBM437

RFC-822-headers:

Received: from CONVERSION-DAEMON by mail.hac.com (PMDF V5.1-10 #26245)  
id <0EN700G01RNRTL@mail.hac.com> for "edward a jr kwik"@mime.mail.hac.com;  
Thu, 22 Jan 1998 17:47:51 -0800 (PST)

Received: from PROCESS-DAEMON by mail.hac.com (PMDF V5.1-10 #26245)  
id <0EN700G01RNQTK@mail.hac.com> for "edward a jr kwik"@mime.mail.hac.com;  
Thu, 22 Jan 1998 17:47:51 -0800 (PST)

Received: from fw-es05.hac.com by mail.hac.com (PMDF V5.1-10 #26245)  
with ESMTP id <0EN7008GJRNQVF@mail.hac.com> for  
"edward a jr kwik"@mime.mail.hac.com; Thu, 22 Jan 1998 17:47:50 -0800 (PST)

Received: from fidoi.cc.lehigh.EDU ([128.180.1.4])  
by fw-es05.hac.com (8.8.4/8.8.4) with ESMTP id RAA06985 for  
<ekwik@mail.hac.com>; Thu, 22 Jan 1998 17:49:37 -0800 (PST)

Received: from Lehigh.EDU ([127.0.0.1]) by fidoi.cc.lehigh.EDU with SMTP id  
<13032-37080>; Thu, 22 Jan 1998 20:50:05 -0500

Received: from nss4.cc.lehigh.EDU ([128.180.1.13]) by fidoi.cc.lehigh.EDU with  
ESMTP id <12769-63454>; Thu, 22 Jan 1998 20:49:35 -0500

Received: from smtp02.primenet.com (smtp02.primenet.com [206.165.6.132])  
by nss4.cc.lehigh.EDU (8.8.8/8.8.5) with ESMTP id UAA90056 for  
<qrp-l@lehigh.edu>; Thu, 22 Jan 1998 20:49:17 -0500

Received: (from daemon@localhost) by smtp02.primenet.com (8.8.8/8.8.8)  
id SAA02403 for <qrp-l@lehigh.edu>; Thu, 22 Jan 1998 18:49:15 -0700 (MST)

Received: from usr05.primenet.com (206.165.6.205)  
via SMTP by smtp02.primenet.com, id smtpd002387; Thu Jan 22 18:49:10 1998

Received: (from vole@localhost) by usr05.primenet.com (8.8.5/8.8.5)  
id SAA28519 for qrp-l@lehigh.edu; Thu, 22 Jan 1998 18:49:11 -0700 (MST)

Date: Thu, 22 Jan 1998 18:49:11 -0700 (MST)

From: Joe Gervais <vole@primenet.com>

Subject: Re: Elmers wanted...take charge yourself

Sender: owner-qrp-l@lehigh.edu

Reply-to: vole@primenet.com

Message-id: <199801230149.SAA28519@usr05.primenet.com>

MIME-version: 1.0

Precedence: bulk

X-Listprocessor-version: 8.1 beta -- ListProcessor(tm) by CREN

--Boundary\_(ID\_4jI2znHk+EnqIRo2fXAYRQ)--

-----  
Date: Thu, 22 Jan 1998 21:03:12 -0500  
From: Paul Helbert <phelbert@rica.net>  
To: clund@bestweb.net  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [1732] Re: WTB Vintage ARRL Handbook  
Message-ID: <34C7FA60.64F27F8@rica.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi Craig et al,

I usually find an old copy of the ARRL Handbook lurking under a table at most any hamfest for about five dollars. Five or ten dollars will also get you a copy of Nelson Cook's Mathematics for Electronics and Radiomen (not sure of title...mine is out in the camper and I'm not going out in this sleet to look for it just now.)

I have what you seek, but not for sale ;>)

73,

Paul, Wv3j

-----  
Date: Fri, 23 Jan 1998 08:12:35 -0600  
From: "Jeff M. Gold" <JGold@tntech.edu>  
To: QRP-L <qrp-1@Lehigh.EDU>  
Subject: [1733] Dan's NW8080 progress  
Message-ID: <34C8A553.C2611C29@tntech.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7bit

All,

well for all you who purchased the super bargain priced NW80's. Mine seems to be going together quite quickly, was hoping it would last longer :\*)

I have found the correction direction sheet takes care of most problems.

I found one mislabelled cap. I have had missing parts.. think Dan must be running out of 78L05s. Think I have been shorted 4 in last two kits, my emergency supply has now run out. the directions are great.. they are pretty much what you get when you buy the real kit, as I remember. I don't like the order of part placement. Dan has done such extensive parts substitution that when I got to the receiver I ran into trouble trying to get low parts inbetween the giant .1 caps Dan provides. I have also made a lot of use out of my LC meter in checking some caps that weren't familiarly marked.

Finished the receiver section last night.. ended up missing 1/2 of Prey, but it stunk anyway. fired it up.. seemed to work, but the VFO seemed like it didn't work anymore. Found that when I wired the on/off volume control I took out the jumper that goes to the VFO. works much better when you have voltage going to it :\*)

I touched my fingers to the end of the temp wire for antenna and was receiving CW on 80 with no problems. All 3 transformers seemed to have pretty sharp peaks. figure it will work pretty well with an antenna.

Got to thinking maybe I am resonant on 80 meters. If this is true, think I need a diet.

72

Jeff, AC4HF

--

Jeff M. Gold, Manager  
Academic Computing Support  
Tennessee Technological University  
(615)372-3979

-----  
Date: Fri, 23 Jan 1998 09:16:00 -0500  
From: "Tracy, Michael, KC1SX" <mtracy@arrl.org>  
To: QRP List <qrp-l@Lehigh.EDU>  
Subject: [1734] Re: Elmer project  
Message-ID: <m0xvjrb-000ZnTC@mgate.arrl.org>

Many good points have been made on both sides of this thread, but I would like to add a few.

Although building a kit (or duplicating an HW-8) or magazine project can teach you something about how a circuit works (especially if something goes wrong), it doesn't teach you anything about design (ie., why the circuit is configured the way it is). Duplicating something that works is surely



satisfying, but not nearly as satisfying as creating a circuit of your own design.

For those who have never built anything, I strongly recommend putting together a few kits (simple ones at first, then more complex ones) to hone your soldering, assembly and troubleshooting skills.

After that (or at the same time), reading a few good books is a must. The Handbook comes highly recommended, but it is not sufficient by itself.

Unless you already have a good electronics background, don't get Introduction to RF Design right away - you'll be in over your head and you should not need the material in this book to come up with a basic radio design. Better choices are Doug DeMaw's Design Notebook and Solid State Design for the Radio Amateur. Build Your Own Intelligent Amateur Radio Transceiver (see New Books, July 1997 QST) is another good choice.

However, I think what many folks are looking for is something along the lines of Zack's "Birth of a 7 MHz Transceiver" (see March 1993 QEX or QRP Power), but greatly expanded. You have to start with a goal more specific than "I want to build a 40M CW transceiver" in order to get from a collection of parts to a working radio. Much design (and building and troubleshooting) work is necessary along the way and you certainly shouldn't put off starting a project just because you don't yet know how to finish it.

Still, it would be nice to know that you can indeed "get there from here" before starting a project. A good book on design decisions would help reduce failures and \$moked part\$.

Of course, some kinds of learning you can only get by doing. If you see something in a book that you don't quite understand, build up a circuit and investigate. If you are curious to see what it would do with different component values, just try it and check it out with whatever test means you have available (another book subject - how to test gear without having professional test equipment).

When parts cost is a concern, rolling your own lets you save some money (compared to duplicating someone else's project) because if it doesn't work, you can always redo any part of it until it does work. Also, that way you won't have a number of dead projects sitting around collecting dust and constantly reminding you of your failures. :-)

Just my \$0.02.

Best Regards, Michael Tracy, KC1SX, ARRL Laboratory Engineer

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American Radio Relay League, Inc.      Tel: 1-860-594-0200  
225 Main Street                              Fax: 1-860-594-0259  
Newington, CT 06111                        Email: mtracy@arrl.org (internet)  
-----

-----  
Date: Fri, 23 Jan 1998 09:19:24 -0400  
From: Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>  
To: qrp-l@Lehigh.EDU  
Subject: [1735] 160 cw contest this weekend!  
Message-ID: <v03110705b0ee47a60221@[132.235.72.188]>  
MIME-version: 1.0  
Content-type: text/plain; charset="us-ascii"  
Content-transfer-encoding: 7BIT

Gang,

Don't forget the 160 meter CQWW CW contest this weekend. There IS a QRP category. Exchange is RST and State for USA, province for Canada and either prefix or country abbreviation for DX.

Starts: CW: 2200Z January 23 to 1600Z January 25

I'll send a complete set of rules to the group in another e-mail. That way if you can't join us, then you can just delete it. (It is only 8K)

This is a great place to work on WAS 160. QRP is especially challenging on our only medium wave band. Good luck to all and CU on 160.

73 de NS80

-----  
Date: Fri, 23 Jan 1998 09:19:52 -0400  
From: Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>  
To: qrp-l@Lehigh.EDU  
Subject: [1736] Complete rules CQWW160M CW  
Message-ID: <v03110706b0ee49656b47@[132.235.72.188]>  
MIME-version: 1.0  
Content-type: text/plain; charset="us-ascii"  
Content-transfer-encoding: 7BIT

Here is all the info you need to know! CU on the band! 73 de NS80

\*\*\*\*\*

CQ World-Wide 160 Meter DX Contest

CW: 2200Z January 23 to 1600Z January 25

SSB: 2200Z February 27 to 1600Z March 1

I. Objective The objective of these contests is for amateurs around the world to contact other amateurs in as many U.S. states, Canadian provinces, and countries as possible on the 160 meter band. Note the SSB date change this year and that USA DC now is a multiplier (same as a state).

II. Classes Single and multi-operator only. Use of packet, a spotting net, or logging assistance makes an entry multi-operator. Multi-operators should show the actual operator for each QSO. Under single operator there will be a designation of power level: H= power over 150 watts, L= power under 150 watts, and Q= 5 watts or less. There will continue to be only listings per state or country, but if there is sufficient activity or if a high enough score is made, then a separate certificate will be issued. Minimum score for the separate certificate is 5,000 points! Multi-operators will all be considered high power.

III. Exchange RS(T) and state for USA, province for Canada, and either prefix or country abbreviation for DX. Contacts without some location indicator will be ruled invalid.

#### IV. Scoring

Contacts with stations in own country, 2 points.

Contacts with stations on same continent, 5 points.

Contacts with other continents, 10 points.

Maritime mobile contacts count 5 points. There is no longer any multiplier value for a maritime mobile contact.

V. Multiplier Each continental US State (48), USA District of Columbia (DC), Canadian area (13), and DX country.

KL7 and KH6 are considered DX and not state for this contest. DX countries are DXCC plus WAE (IT, GM Shetland Islands, et al). Canadian areas include V01, V02, NB, NS, PEI, VE2, VE3,

VE4, VE5, VE6, VE7, NWT, and Yukon. Do not count States and Canada as separate countries. Remember that maritime mobiles no longer count as a multiplier.

VI. Final Score    Total QSO points times the sum of all multipliers (states, VE, DX countries).

VII. Penalties    Three additional contacts may be deleted for each unacknowledged duplicate or unverified contact removed from the log.

VIII. Disqualification    A log may be disqualified for violation of amateur radio regulations, unsportsmanlike conduct, or claiming excessive duplicate/unverified contacts or false multipliers. Logs that shrink more than 5% are subject to disqualification or warning. The calls of those warned or disqualified may be printed with the results.

IX. Awards    Certificates will be awarded to the top scores in each class by state, Canadian area, and DX country. Runners-up with high scores over 100,000 may also receive certificates. Low power or QRP entries may also receive certificates if there is sufficient activity or the scoring is outstanding. The following plaques, with donating sponsors as indicated, will be awarded for exceptional efforts.

X. Intercontinental DX Window  
1830 to 1835 khz should be left clear for DX stations for intercontinental QSOs in both contests. This is still voluntary but essential if the contest is to continue to attract rare DX as entries. USA, Canadian, and European stations should refrain from using the window for local contacts. Please stay away from the window edges, too. This is a gentleman's contest and band, so let's help make intercontinental contacts happen.

XI. Computer Logging  
Please send us your computer disk. IBM, MS-DOS compatible disks are encouraged. The format we prefer is your CT.bin or NA.bin

file. If you use a program different from the one mentioned above, the generic format should contain a vertical single column of calls in chronological order. The committee will require, on request, a disk for any possible high score, provided that the paper log or dupe checking material as originally submitted was a computer printout. The outside of the disk should be clearly labeled with the call of the entrant, the files included, the mode (CW or SSB), and the category. Disks must be accompanied by a paper log or are subject to penalties or disqualification.

#### XII. Manual Logs

Sample log and summary sheets may be obtained from CQ by sending a large SASE with sufficient postage to cover your request. You can make your own with 40 contacts per page with columns for GMT, exchanges, multiplier, and points.

#### XIII. Dupe/Check Sheets

All logs over 200 contacts must provide a check sheet or dupe list. A check sheet or dupe list is a list of all calls in alpha sorted order.

#### XIV. For All Logs

Show the multiplier only the first time it is worked. Each page must have sub-totals for multipliers, contacts, and points. A running total below the sub-total on each page is recommended. Dupe or check sheets with every entry are requested and are required with over 200 QSO's. Include a summary sheet with your entry showing the scoring and other essential information. Include a printed name/mailling address and a signed declaration that all rules have been observed. Please put the summary sheet at the front of the log. All logs should clearly indicate total multiplier, W/VE multiplier, and DX multiplier.

#### XV. Club Competition

Any club that submits at least three logs can enter the Club Competition. The name of the club must be clearly identified under club competition on the summary sheet. Club competition is a "for fun" competition to foster more activity. There is a separate listing for the club scores.

#### XVI. Log Submissions

Mailing deadline for CW entries is February 28, 1998, and March 31, 1998 for the SSB section. Exception: You may send both logs in one package as long as the CW log is received by March 31, 1998. Try to mail early to assure receipt. For a return receipt enclose an SASE or SAE with postage or 1 IRC. Avoid the registered postal route, as this delays getting the log until someone can sign the receipt! Finally, proof read your log before submission. Each year many errors are corrected that you should catch! Logs or sections of a log that are unreadable will be disqualified.

Send all logs to:

160 Meter Contest Director  
David L. Thompson, K4JRB  
4166 Mill Stone Court  
Norcross  
GA, 30092  
USA

Please indicate CW or SSB on the envelope.

e-mail to [cq160@contesting.com](mailto:cq160@contesting.com)

E-mail logs should include the summary (.sum), the log (.all or .log or any ascii text listing), and the dup list (.dup).

Update: 01/19/98

-----  
Date: Fri, 23 Jan 1998 08:51:12 -0600 (CST)  
From: [rspenc@creighton.edu](mailto:rspenc@creighton.edu)  
To: [qrp-l@Lehigh.EDU](mailto:qrp-l@Lehigh.EDU)  
Subject: [1737] heathkit parts  
Message-ID: <Pine.HPP.3.95.980123084916.24189A-100000@bluejay.creighton.edu>

Mime-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Gang:

I know a long time ago this has been discussed, but can anyone provide me any guidance as to where I may obtain parts for old Heathkits? I understand someone (or someone's business endeavor) has purchased the old stock of Heath parts.

Pse email me direct (unless you strongly feel others on the list may benefit from this info).

Tnx fer BW,

Rich

|                                    |                                 |
|------------------------------------|---------------------------------|
| Dr. Richard S. Penc                | Amateur Radio: call WK2A        |
| Assistant Professor                | Interests: QRP, constructing,   |
| Department of Atmospheric Sciences | 6m                              |
| Creighton University               |                                 |
| 2500 California Plaza              | FCC Licenses:                   |
| Omaha, NE 68178                    | General Radiotelephone          |
|                                    | Second Class Radiotelegraph     |
|                                    | Radar Endorsement               |
|                                    |                                 |
| phone: (402) 280-2420              | Accredited VE: ARRL, W5YI       |
| fax: (402) 280-1731                |                                 |
| email: rspenc@creighton.edu        | Certifiably crazy computer geek |
| richpenc@juno.com                  |                                 |

-----  
Date: Fri, 23 Jan 1998 08:02:32 -0700  
From: Andy Fox <foxes@theriver.com>  
To: mtracy@arrl.org  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [1738] Re: Elmer project  
Message-ID: <34C8B108.5D4B0DBD@theriver.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi,

Mike, you hit the nail on the head. I have put together a number of kits. Most of them worked the first time, but I didn't learn much. I learned more trying to figure out how to fix the ones that didn't work the first time.

I've been doing a lot of reading, and things are finally starting to stick occasionally. I got "Introduction to RF design" for Christmas, and decided after about ten pages that it was time to go back and review a few of my college texts, then go back to the book.

I think the best route for me might be to start with a transistor and a few resistors on a protoboard, read some theory, then build a really simple amplifier. Stare at it for a while (with a scope), then ask myself some questions like "how do I double/triple/halve the gain?" Then make some parts substitutions to see that it really works. Come to think about it, this is what we did in electronics lab about 15 years ago.

The next step is where the virtual elmer would come in handy. Suggestions for VFO circuits and similar building blocks by the guys who have been there/done that would help ease the learning curve. Then piece the building blocks together to make a real radio.

I've seen a number of books suggested here on the list. Those suggestions have prompted me to buy "Joy of QRP" (Weiss), "QRP Data Book" (Harden), "The Complete DXer" (Locher) and others. Maybe several of the experts on this list could compile a list of "required reading" for different skill levels.

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-----  
Andy Fox, KK7HV  
mailto:foxes@theriver.com  
<http://personal.riverusers.com/~foxes/>  
-----

-----  
Date: Fri, 23 Jan 1998 15:15:38 GMT  
From: adams@chuck.dallas.sgi.com (Chuck Adams)  
To: qrp-l@Lehigh.EDU  
Subject: [1739] NOVICE FOX SCORES  
Message-ID: <199801231515.PAA07864@chuck.dallas.sgi.com>



Gang,

Note the G3 in the DX section of the scores. This has not been done in the Extra/Advanced/General group. :-)

Also note when I post a new Novice Schedule today that Hawaii comes into play. !!!!!

In the 1998 schedule some of these guys will not appear as a fox again as they have upgraded. Congratulations guys.

NOVICE AND TECH+ SCORES  
January 23, 1998

Total Number of Qs = 933!!!

```
+-----+
+
+      FOX SCORES      +
+
+-----+
```

|                  |         |     |
|------------------|---------|-----|
| KB7MBI           | Alan    | 164 |
| KF4TRD           | Mike    | 20  |
| KF4HAW           | Dave    | 38  |
| W2MBY(ex-KC2CFZ) | John    | 134 |
| KB0VRV           | Tim     | 36  |
| N0GLM            | Preston | 33  |
| N8VZU            | Dan     | 12  |

```
+-----+
+
+      HUNTERS SCORES  +
+
+-----+
```

```
-----+
K0EVZ(20) W0CH(5) KB0YSN(2) KB0ROL(2) N0HJ(2) KI0II(7) K0SU
      NI0A(16) W0CLR(3) KB0PTE(4) K0ZK KB0ZDF(7) KE0WW(10)
WB0ROQ(4) KQ0I(4) KB0LMQ WB0T(4) N0YKO
N0UVR W0DT W0RW(3) KC1FB(3) N0KW N0NI N0TU(4) K0MT
AB0GO(3) KI0KY WB0QQT W0DAM KG0MZ
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```

-----+
N1QQV(6) AK1P WA1QVM(8) K1HS N1TP(7) KF1PH K1CL
-----+
WZ2T K2VCO KC2CFZ(2) N2MNN KF2PH(2) N2WF(2) N2TNN N2GO KF2HC
KB2SGM W2JB
-----+
N3VXI(3) N3XRV N3YSI(3) W3PNL N3WXI KJ3V(4) N3XRV(3) KA3WMJ
W3VNL N3ZPQ WD3KGO
-----+
N4SO(8) WB4EXW(11) WD4MNM KU4AF(2) N4ROA(8) AE4IC AE4GX
K4PYM KK4KF KF4TRD(2) KE4IZH KS4L WD4MSM KD4PUP KS4L
N4EUK WB4DTC KF4EWO KF4JSV KD4KZQ KF4HZH WS4S
-----+
KA5T(10) K5ON(8) KK5KU K5ZTY(2) AA5TA(3) K5ID(6) KE5TC WB5FKC
K5OI(2) KC5FMZ(2) K5FO N5ALO(2) W5HNS N5GT K5LTY
AC5JH W5JAY
-----+
KI6OY WE6W(5) K6MW N6CHV N6WG(3) N6MM(2) K6VNX(3) K6RPN KF6CTA
W6SIY KK6MC WA6NAE AA6AD
-----+
W7QQQ KI7MN(2) N7XJW NQ7X(8) W7SSM(2) W7GVN(3) KC7KHD N7VE
N7CQR KU7Y(12) W7JDZ(3) KB7MBI(4) KA7NOC(3) KL7IXI
KC7GHH KJ7ZU(2) KI7JL AB7MY(3) KK7GW(3) AB7TT(3) N7KT
AB7ST
-----+
W8KC WA8GHZ K8DD(2) W8SFF KA8ODQ N8VAR N8VZU(2) K8FF
-----+
W9UQB(5) AF9T(2) NN9K(2) N9KW(9) KB9IUA(4) AA9UK WB9HFK(3)
WA9PWP(8) N9AW(2) N9DD KB9GEG(2) K9LJB
-----+
KL7CC(2) AL7FS VE3ELA(13) VE3SP VE3TAW VE5RC(11) VE5WF(7)
VE7CQK G3LAZ VE3JC
-----+

```

Chuck Adams K5FO CP-60  
<http://reality.sgi.com/adams> adams@sgi.com

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Date: Fri, 23 Jan 1998 10:18:20 EST
From: n7mfb@juno.com (Bill Todd)
To: rspenc@creighton.edu
Cc: qrp-1@Lehigh.EDU
Subject: [1740] Re: heathkit parts
Message-ID: <19980123.071721.8047.0.n7mfb@juno.com>

```

On Fri, 23 Jan 1998 08:51:12 -0600 (CST) rspenc@creighton.edu writes:

>Gang:

>

>I know a long time ago this has been discussed, but can anyone provide  
>me any guidance as to where I may obtain parts for old Heathkits?

Hi Rich -

One fellow that is really into Heathkits, and who has plenty of parts available is a fellow in Novato, CA. His name is Bill (W0QNI), and I have talked with Bill many times on the air, and he has always been helpful.

You can contact Bill at the following E-mail address: W0QNI@aol.com

Good luck to you!

Bill-N7MFB

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You don't need to buy Internet access to use free Internet e-mail.  
Get completely free e-mail from Juno at <http://www.juno.com>  
Or call Juno at (800) 654-JUNO [654-5866]

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Date: Fri, 23 Jan 1998 15:24:01 GMT  
From: adams@chuck.dallas.sgi.com (Chuck Adams)  
To: qrp-l@Lehigh.EDU  
Subject: [1741] Novice/Tech+ FOX Schedule  
Message-ID: <199801231524.PAA07886@chuck.dallas.sgi.com>

Gang,

Here are the current dates for January 1998 and February 1998 for the Novice and Tech+ fox volunteers. They will post in advance their frequencies. In the past the usual freqs have been 7.122MHz and 7.142MHz areas, plus or minus QRM. They are free to move to where they have minimum QRM and BC interference.

Note that there is George in HI on tonight (Thursday on the mainland) and I think the schedule is still good for him. He will post particulars if there is a problem. Yes, he did volunteer for the long period. Such dedication

and some of us will be staying up late, for sure.

There are more dates and volunteers coming, so don't put this in concrete yet. Also on the nights were there are two or more on at the same time, they will spread out. This will allow the players, i.e. the hunters to get multiple 'pelts' in one night. :-)

I'll post several times a week on this until it stabilizes. This is for the Novice/Tech+ members to be very active and up grade before May of this year. Let's help them all we can..... Go at their speeds.

Any other Novice/Tech+ volunteers gladly taken at this time. Send email to [adams@sgi.com](mailto:adams@sgi.com) for particulars. You must be Novice or Tech+ to be a fox here.

| Call   | Name    | State | Dates                |
|--------|---------|-------|----------------------|
| >W2MBY | John    | NJ    | Jan 3 0000-0200 UTC  |
| >N8VZU | Dan     | OH    | Jan 5 0000-0100 UTC  |
| >N0GLM | Preston | NY    | Jan 6 0000-0200 UTC  |
| >W2MBY | John    | NJ    | Jan 10 0000-0200 UTC |
| >N0GLM | Preston | NY    | Jan 16 0000-0200 UTC |
| >W2MBY | John    | NJ    | Jan 17 0000-0200 UTC |
| >N8VZU | Dan     | OH    | Jan 19 0000-0100 UTC |
| N0GLM  | Preston | NY    | Jan 24 0000-0200 UTC |
| WH6CYX | George  | HI    | Jan 24 0000-0600     |
| W2MBY  | John    | NJ    | Jan 24 0000-0200 UTC |
| N0GLM  | Preston | NY    | Jan 30 0000-0200 UTC |
| WH6CYX | George  | HI    | Jan 31 0000-0600     |
| W2MBY  | John    | NJ    | Jan 31 0000-0200 UTC |
| N8VZU  | Dan     | OH    | Feb 2 0000-0100 UTC  |
| N0GLM  | Preston | NY    | Feb 6 0000-0200 UTC  |
| W2MBY  | John    | NJ    | Feb 7 0000-0200 UTC  |
| WH6CYX | George  | HI    | Feb 07 0000-0600     |
| N0GLM  | Preston | NY    | Feb 13 0000-0200 UTC |
| W2MBY  | John    | NJ    | Feb 14 0000-0200 UTC |
| WH6CYX | George  | HI    | Feb 14 0000-0600     |
| N8VZU  | Dan     | OH    | Feb 16 0000-0100 UTC |
| N0GLM  | Preston | NY    | Feb 20 0000-0200 UTC |
| W2MBY  | John    | NJ    | Feb 21 0000-0200 UTC |
| WH6CYX | George  | HI    | Feb 21 0000-0600     |
| N0GLM  | Preston | NY    | Feb 27 0000-0200 UTC |

W2MBY John NJ Feb 28 0000-0200 UTC  
WH6CYX George HI Feb 28 0000-0600

Chuck Adams K5FO CP-60  
<http://reality.sgi.com/adams> adams@sgi.com

-----  
Date: Fri, 23 Jan 1998 07:24:58 -0800 (PST)  
From: Monte Stark <ku7y@sage.dri.edu>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [1742] Re: Twist on Elmer Project  
Message-ID: <Pine.SUN.3.90.980123070534.3344B-1000000@vortex>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi All,

Well, I am seeing things in this exchange that I thought I'd see and some I hadn't thought about!

Nothing wrong with kits, but I don't think that's the way to learn electronics. That's a good way to learn to follow directions!

No one has mentioned what I think is a SUPER way to learn about a circuit.....

Don't use a kit, don't use perf board, don't do ugly bug.... Get one of the little breadboarding gadgets! No soldering and you can change and change and change..... RS has them as do any catalog outfit.

Then after you get that section working, you can build it using any method that trips your trigger!

And on the subject of books.....

Most books are written like text books. Text books are written to be used in conjunction with an instructor! Most of us don't have an instructor handy or this thread wouldn't be here!

By far the best "self help" electronics books are the ones I've seen from the "electronics by mail" schools like National, DeVary (sp?) and etc. They had the motivation to explain/show it right. The better you could understand the book the fewer calls they got!!

People need to get out of the "box" of thinking when it comes to teaching without a teacher!

I still say that one of the most confusing things, (for me at least) is the way examples seem to jump from circuit to circuit! Just about the time you think you are starting to understand something, BAM, you leave the defugulator and jump into the middle of a corsaicopulded anti-follower!

Why not stick with one simple circuit and show EVERYTHING about that circuit before moving on? Then some of us slower folks might be able to see a little more light! It's great to know ohms law, but if you don't know how it is used what good is it?

I see a series to help people understand how a radio works as being the "IT" that is talked about.

Any trip is easy AFTER you figure out where you are going! It's the first step that is the hardest!

OK, back in my hole....

73, Ron, SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----

Date: Fri, 23 Jan 1998 15:54:20 GMT  
From: adams@chuck.dallas.sgi.com (Chuck Adams)  
To: qrp-l@Lehigh.EDU  
Subject: [1743] Dates and Novices  
Message-ID: <199801231554.PAA08089@chuck.dallas.sgi.com>

OK, so I missed a day this week. :-) Today is Friday.

I did two two week courses in two days for 9 people and it messed me up. :-) I'll be alright I promise.

:-)

dit dit  
Chuck Adams K5FO CP-60  
<http://reality.sgi.com/adams> adams@sgi.com

-----  
Date: Fri, 23 Jan 1998 11:04:24 EST  
From: sigcom@juno.com (Stephen M Smith)  
To: qrp-1@Lehigh.EDU  
Subject: [1744] NW80/20 vs NW8020 (long)  
Message-ID: <19980123.080158.8327.2.sigcom@juno.com>

Group,

I received my NW80/20 40 meter kit from Dan yesterday (Thurs.) and decided to compare the circuit to Roy's Emtech 8020. Dan's kit is apparently a copy of an earlier revision of Roy's design. The two circuits are nearly identical. Here are the differences in the circuitry that I found:

There is no variable bandwidth IF circuit on Dan's.

The audio filter on Emtech's is between the product detector output and the mute gate input. On Dan's it is between the mute gate output and the audio amplifier input.

Emtech has variable sidetone level (a pot across the mute gate), Dan's does not ( a fixed resistor across the mute gate).

The transmitter power level adjustment on Dan's is a pot from source to ground of the J-fet VFO buffer. On Emtech's, the source resistor of the VFO buffer is fixed and the level adjustment pot is in the emitter circuit of the transmit buffer.

Emtech has a zener diode (1N4753A) from the collector of the transmitter PA to ground, Dan's has none.

There are a couple of test points/take-off points in the Emtech that aren't in Dan's.

The last item will make the biggest difference in receiver performance, IMO. Emtech has a J-fet IF amplifier following the crystal filter. In Dan's kit, the crystal filter output goes directly to the MC1350 IF amplifier. This may make quite a difference in receiver sensitivity.

As far as differences in parts, P.C. board, assembly instructions, etc. I cannot say as I have never built an Emtech. I only have the circuit diagram. I -have- operated an Emtech and can say that it works well and I was very impressed with the performance and stability. After I get my Dan's kit built and aligned, Mike Schettler, WA6MER and I will do a

side-by-side comparison of his Emtech 40 meter model and my Dan's version and report the results.

Usual disclaimer applies, your mileage may vary, caveat emptor,  
yada....yada....yada.

73.....Steve, WB6TNL (now officially a NorCal member, er associate, um affiliate, whatever.)

-----  
Date: Fri, 23 Jan 1998 11:21:45 -0500  
From: "Buck, Preston D" <BuckPD@corning.com>  
To: "'qrp-1@Lehigh.EDU'" <qrp-1@Lehigh.EDU>  
Subject: [1745] FOX: 2 N/T Foxes Fri night  
Message-ID: <6B137F61081DD0118DF600805FEAC5C5C8EC2C@SILVER.CORNING.COM>  
Content-Return: allowed  
Mime-Version: 1.0  
Content-Type: text/plain

Greetings all,

I just read in the digest that W2MBI and I (N0GLM) are the N/T foxes tonight, at the same time, and same freq (both around 7.14 MHz)!!!!

So, I will move my frequency down to around 7.11 MHz around the qrp calling frequency. It gets pretty crowded around there so I may have to move up to the 7.13 range but I will try to avoid it.

It would be pretty bad to have 2 foxes calling CQ on the same frequency and both from the Eastern US. The chaos that could result would be delightful. Especially since we probably won't be able to hear each other.

72  
Preston, n0glm, South NY

-----  
Date: Fri, 23 Jan 1998 08:23:44 -0800 (PST)  
From: Monte Stark <ku7y@sage.dri.edu>  
To: Chuck Adams <adams@chuck.dallas.sgi.com>  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [1746] Re: Dates and Novices  
Message-ID: <Pine.SUN.3.90.980123082202.3476A-1000000@vortex>  
MIME-Version: 1.0



Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Jan 1998, Chuck Adams wrote:

> I did two two week courses in two days .....

Hmmmmmm, getting ready for the 2222 contest, eh? Only  
one two to go....

You need to do this just before SS next year... :-)

73, Ron,        SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

-----  
Date: Fri, 23 Jan 1998 08:09:28 -0700 (MST)  
From: bcutter@teal.csn.net (Bob Cutter)  
To: qrp-l@Lehigh.EDU  
Subject: [1747] Elmers wanted  
Message-ID: <199801231509.IAA10382@ns-1.csn.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Hello,

My name is Bob and I am a lawyer, but late at night I sometimes melt solder.

72, Bob KI0G

-----  
Date: Fri, 23 Jan 1998 10:06:28 -0800 (PST)  
From: Sam <kc5tja@animeonline.ml.org>  
To: Andy Fox <foxes@theriver.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [1748] Re: Elmer project  
Message-ID: <Pine.LNX.3.96.980123095440.25036B-100000@animeonline.ml.org>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

> The next step is where the virtual elmer would come in handy.  
> Suggestions for VFO circuits and similar building blocks by the guys who  
> have been there/done that would help ease the learning curve. Then  
> piece the building blocks together to make a real radio.

OK, first suggestion - and it took me two years of failed VFOs to figure this out... (this is also a success story, since I got my first RF lesson yesterday):

Rule #1 of VFO Design  
DO NOT EVER FORGET ABOUT CAPACITANCE!

Capacitance can be your friend, even stray capacitance, if you design the circuit with it in mind. In VFOs 1-14 in my building history, I failed to take this into effect. Some of the symptoms this resulted in included:

- 1) Failure to start (makes great noise amp, but nothing else)
- 2) Unreliable oscillations (wrong frequency, massive harmonics, etc).
- 3) Dead-bands...right in the middle of your desired tuning range!
- 4) Low output drive (just learned this with VFO design 15)
- 5) Extremely environmentally dependent (tune the circuit with your hand 6" away from the oscillator? What a concept!! :D)
- 6) And more that I simply can't remember now... :)

With VFO 15, I designed the initial circuit on a Radio Shack breadboard (you know, those white slabs of plastic with all the little holes). I took ALL capacitances into effect (except the breadboard's stray capacitances, since that would overload my head). All the leads were long too.

The oscillator exhibited serious microphonic symptoms, as well as unreliable starting. Pounding the table, however, would usually get the oscillator to start ( :) ), but the harmonic content almost overwhelmed the output signal. But it was my first VFO that, when it started, output a fundamental frequency that was dead-on with my calculations, and included my entire tuning range (and then some), with no intervening dead-bands.

After rebuilding the VFO using deadbug techniques, the oscillator starts 100% reliably (after four hours of on-off testing into a 1K resistor), has increased output drive, and harmonic content is much reduced (but not eliminated). In short, I now have my first USABLE VFO. :)

One of these days, I'll post a picture of it. It occupies just short of 1"x1" of space, not including the homebrew coil.

=====

-| TEAM DOLPHIN |-  
Chief Architect and Project Founder  
(web page under construction)

PGP 5.0 Public Key Available Upon Request.

-----  
Date: Fri, 23 Jan 1998 10:02:35 -0700  
From: "Ron Smith" <resmith@primenet.com>  
To: <ku7y@sage.dri.edu>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [1749] Re: Twist on Elmer Project  
Message-ID: <098701bd2820\$e74d28a0\$1222a5ce@primenet.com.primenet.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

>Nothing wrong with kits, but I don't think that's the way  
>to learn electronics. That's a good way to learn to follow  
>directions!

I couldn't agree more. I've built receivers, tv's, transceivers, code oscillators, and had a ball doing it. If "it" worked, great -- but if it didn't work then I had a problem. During the kit building process I was never taught what did what to who, how the parts worked together to make a whatzit, or even how to do a knowledgable troubleshooting process to fix it. Several non-working projects are at the dump now.

>I still say that one of the most confusing things, (for me at  
>least) is the way examples seem to jump from circuit to circuit!  
>Just about the time you think you are starting to understand  
>something, BAM, you leave the defugulator and jump into the middle  
>of a corsaicopulded anti-follerer!

Right on Ron. This is a fine example of the "just build it" process. Ok, so I just built the defugulator, explain to me what it is, how the parts work to make the final product, how the defugulator works, and how to troubleshoot it -- THEN move on to the anti-follerer and do the same thing. IMHO it's the missing information of what it is, how it works individually and as part of the whole, and how to troubleshoot it individually and the whole that make many of us (hams) "equipment operators."

>I see a series to help people understand how a radio works as being  
>the "IT" that is talked about.

I think there are many of us that would KILL for this type series - taking  
it one step further into troubleshooting. I've told a few of you on the  
list that I've been an "equipment operator" for 20 years. Now, it's time I  
became a ham.

>Any trip is easy AFTER you figure out where you are going! It's  
>the first step that is the hardest!

I couldn't have put it any better. Talk about the nails head!

72

Ron Smith

-----  
Amateur Radio Callsign: KD7VD  
Boise, Idaho  
E-mail: resmith@primenet.com  
QRP-L #1291...ARCI #9580  
-----

>  
>OK, back in my hole....  
>  
>73, Ron, SOWP 5545M,  
>  
>.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....  
>....ku7y@sage.dri.edu.....Washoe Lake, Nevada....  
>....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....  
>  
>

-----  
Date: Fri, 23 Jan 1998 10:06:54 -0700 (MST)  
From: Paul Harden <pharden@aoc.nrao.edu>  
To: Stephen M Smith <sigcom@juno.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [1750] Re: NW80/20 vs NW8020 (long)  
Message-ID: <Pine.SOL.3.91.980123093730.15014C-1000000@zia>

MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Fri, 23 Jan 1998, Stephen M Smith wrote:

> Group,  
>

> I received my NW80/20 40 meter kit from Dan yesterday (Thurs.) and  
> decided to compare the circuit to Roy's Emtech 8020. Dan's kit is  
> apparently a copy of an earlier revision of Roy's design.

Yes ... by many years.

> Here are the differences in the circuitry that I found:  
(some items snipped)

> The last item will make the biggest difference in receiver performance,  
> IMO. Emtech has a J-fet IF amplifier following the crystal filter. In  
> Dan's kit, the crystal filter output goes directly to the MC1350 IF  
> amplifier. This may make quite a difference in receiver sensitivity.

This amplifier only adds about 8dB of gain ... but it's real purpose is an impedance "transformer" between the low-Z (~300 ohms) of the crystal filter to the 1.5K ohm input to the MC1350. This means less reflections back into the filter, and a much lower noise figure. An MC1350 is a fairly noisy device as it is, and a 300 -to-1500 ohm impedance mismatch makes it worse :-). This scheme makes a significant improvement in lowering the noise figure in the Emtech NW version. I did some measurements for Roy on this a couple years back when he added it. You'll notice MFJ now includes this circuit on their 9000 series rigs, for the same reason.

Another very important consideration is Emtech kits are sent out with the quality parts as intended. No strange substitutions. Dan's kits are intended as an economy kit, supplied with parts as available, which sometimes are not even physically compatible to the hole spacing on the boards. This is not an insult to Dan's (I'm a customer too) ... he provides this kit pretty much "as is" and is a workable rig with some understood limitations.

This is true when comparing these kits ... there's a big difference between the current, quality kits from EmTech, Wilderness, Small Wonders/NN1G, etc. which includes the designers support, to these older, unsupported designs. In other words, don't compare apples to oranges. And don't expect an old \$40 kit to have the same quality parts, documentation, support or performance of a \$100+ kit. Again, I'm not insulting Dan's ... he provides a great service to the hobby. Like buying any kit, make sure you understand what you are getting.

> I was very impressed with the performance and stability.

I'll be using mine for FYBO!

> Mike Schettler, WA6MER and I will do a  
> side-by-side comparison of his Emtech 40 meter model and my Dan's version  
> and report the results.

Please do. I don't know if a side-by-side has been done, and would be a valuable contribution on this constantly arising question "what's the difference between the Dans NW8040 and the EmTech?"

> Usual disclaimer applies, your mileage may vary, caveat emptor,  
> yada....yada....yada.

ditto

72, Paul NA5N

-----  
Date: Fri, 23 Jan 1998 10:24:33 -0800 (PST)  
From: Sam <kc5tja@animeonline.ml.org>  
To: qrp-1@Lehigh.EDU  
Subject: [1751] Project: 40m CW Transceiver  
Message-ID: <Pine.LNX.3.96.980123101254.25036C-100000@animeonline.ml.org>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

With all this "Right on" and "You hit the nail on the head" stuff going on, and nobody writing anything about it, I was wondering if anyone would be willing to start an on-line book, and later release it for publication (ARRL's press seems to have a wide hobby-related audience).

I'd be willing to donate my web space for the project. After all, my web pages need retrofitting anyway... :) And as system administrator of AxisInternet, I don't have disk quotas... (evil grin)

I can contribute what little I know about VF0s (hehehe), and a lot of my experiences on the subject. Since it took me 15 tries to get a working VF0 in the past two years, and the fact that I finally did it with minimal input from others, I'm gosh darn proud of myself. Granted, it's not a complete radio yet, but it's a great whatzit-gizmokon that I think I'll frame, just to remind me of the learning process I had to go through just to get it working! Zack Lau once wrote me an email saying that VF0s are the single hardest part to build in a radio.

=====

-| TEAM DOLPHIN |-  
Chief Architect and Project Founder  
(web page under construction)

PGP 5.0 Public Key Available Upon Request.

-----

Date: Fri, 23 Jan 1998 17:34:20 +0000  
From: Ed Loranger <we6w@qsl.net>  
To: aweiss@sunflowr.usd.edu  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [1752] Re: Effective antenna height and dirt.  
Message-ID: <34C8D49C.635F@qsl.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Adrian Weiss wrote:  
<snip gud stuff :>, thanks, Ade.>

> I agree that watering the trees is the only sane thing to do.  
> Environmentalism aside, we QRP'rs have got to realise that cutting down  
> trees is th worst evil that exists. Every living (and some dead ones) tree  
> is a potential antenna mast waiting for some QRP'r to come along and say,  
> "Wow! get out the slingshot." So, we must unit to combat the evil forces  
> of greed which drives developers and lumber-types to cut down our masts  
> wholesale!!!

I just found out that the official maximum height of masts here is  
35 feet. I had heard this before but no-one offered any official  
paper on the subject. I had a qso with a local, he had such paper  
and explained his curiosity how I got my antenna up, in the city,  
to 45 feet without any complaints.

Well, I surprized him. The center is up 45 feet, buy held by the  
'natural mast', a tree. That gets around the 'mast height' restriction.  
The ends of my dipole are at 33 feet so I'm OK there.

Long live the trees. And it also pays to know the difference between  
the "Antenna Height" restriction, and the "Mast Height" restriction!

72,  
Ed

--

Recipient of coveted Samuel F. B. Morse Award, NTTC Pensacola, FL 1977.  
72/73 de we6w qrp es CW ONLY; Member: QRP-L/ARCI/Norcal/ARS/AR  
<http://www.qsl.net/we6w> (From Non-Ham to Extra in one Day.)

-----  
Date: Fri, 23 Jan 1998 13:10:56 -0500  
From: cooper@gmpvt.com (Tom Cooper)  
To: qrp-l@Lehigh.EDU  
Subject: [1753] Re: Effective antenna height and dirt.  
Message-ID: <199801231810.NAA18253@web.gmpvt.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

The big ice storm re-arranged all 5 of my antennas, which were up  
in some big trees. Now, they are on the ground under 2' of snow!

But, you never know. I've worked a few dx stations on 40 on my  
Argo 509, so maybe I've got the right kind of dirt. In any case,  
old man winter is here for a while and I've got a learning opportunity.

72/73

Tom W1EAT  
Burlington, VT

-----  
Date: Fri, 23 Jan 1998 11:26:28 -0600  
From: "Marshall Emm" <mgemm@mtechnologies.com>  
To: cqclist@lists.csn.net, qrp-l@Lehigh.EDU  
Subject: [1754] Small World (Longish)  
Message-ID: <199801231926.MAA02429@edison.chisp.net>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7BIT

Somebody asked me how I happened to get involved with the Key-8  
paddles and that reminded me that I had intended to post the story  
here under the heading of "How small is this world" or some-such.

It's a longish story, but I think you'll find it interesting, if not  
actually scary.



About 18 months ago two things happened. First, I decided that somewhere there must be a GOOD straight key at a reasonable price, because everything I had seen in catalogues and elsewhere was either cheap junk, surplus military, or very expensive. There was an obvious gap in the market, and I was hoping to fill it.

Second, I saw the Key-8 at HRO here in Denver. They told me that a few of them had been left by a visiting Russian named Larry, UA6HZ, but they didn't know much about either the paddles or Larry. Which was a shame, because I was hoping there was a comparable straight key. I bought the paddle then and there (didn't even realize it had a keyer in it till I got it home) but also got a "possible" phone number for Larry, and a mailing address in Russia. When I called the number I was told that Larry had moved to New York, but they had a number I could call. Fortunately I speak a bit of Russian, so I was able to figure out what the guy in NY was trying to tell me-- Larry had gone back to Russia. I wrote to him at the address from the QSL card, but never got an answer.

Meanwhile, I discovered almost by accident that the HK-708 is still available, and just exactly the sort of key I was looking for. I've been importing them (and other Hi-Mound products) for a few months now and doing very well with them. Well enough to pretty much forget about the Key-8.

Time passes. All of three weeks ago, it was New Years' Eve, my wife was at work and the kids were out, so I went to do some grocery shopping. When I went to put my stuff in the car, the door of the car next to mine flew open, and an odd looking guy jumped out, stuck out his hand, and said "Hi, I'm Larry." I'm sure you've made the connection already, but my immediate thought was that it was somebody trying to sell me something (happens all the time in that parking lot). But he explained he'd seen the antennas on the car and we settled in for a good old eye-ball rag chew. I swear it was a good twenty minutes before the penny dropped and I realized who I was talking to. I had forgotten that I was looking for him and he'd never known!

Anyhow, he has more of the paddles, and actually about 200 of them still in Russia, and more can be made if

there is enough demand, so it looks like I am in business with the Russians.

Larry also has a lot of contacts over there and will try to find out what else might be available. Maybe we could even talk the ElectroInstrument folks into making a straight key, who knows?

Well, I told you it was a long story [g].

If you haven't already seen it, you'll find a picture of my "famous" modified Key-8 at <http://www.mtechnologies.com/key8.htm>

73

Marshall Emm

N1FN/VK5FN

n1fn@mtechnologies.com

Milestone Technologies

Software, kits, tools...

<http://www.mtechnologies.com>

(303)752-3382

--

-----  
Date: Fri, 23 Jan 1998 11:48:21 -0700

From: tom whalen <[whalen@swcp.com](mailto:whalen@swcp.com)>

To: Low Power Amateur Radio Discussion <[qrp-1@Lehigh.EDU](mailto:qrp-1@Lehigh.EDU)>

Subject: [1755] Emtech80/20

Message-ID: <34C8E5F5.5DA7@swcp.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hi Folks!

Seen some threads floating around concerning the Emtech rig, so Im giving my .02 worth. Just started building it a couple of days ago and must say Im impressed with the quality of this kit. I can only compare it to an OHR rig, which was my first, both rigs are of comparable quality.

I have found support from Roy very good, as I have had a few questions and he is there for you if you need help.

Hopefully, I will have my rig(20meter) working for FYBO and can have

some fun with it. Jay has been putting his rigs in the fridge to get them acclimated for FYBO...Im gonna go one step further and put mine on dry ice....should equal the condx in AZ if I can go!!!! 72, and "Have spud will travel!" WB5QYT Tom

-----  
Date: Fri, 23 Jan 1998 10:55:26 -0800 (PST)  
From: talljazz@teleport.com (Dan Presley)  
To: qrp-1@Lehigh.EDU  
Subject: [1756] elmer kits  
Message-ID: <v01530507b0ee235727fe@[206.163.123.244]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Kits can be a great way to learn if structured well. I purchased a Ten Tec regen reciever kit for xmas for my boy and I to build, kinda like my dad & I built a Heathkit regen back in about 1963!The T-T kit is well thought out, and has you build and test in stages-first is the audio amp,and your test equipment consists of a 12v supply (batteries!) and putting your finger on one of the resistors to generate hum through the speaker! This gives a chance to see the circuit by itself, and explain to a 9 yr old ( and my 46yr old self) what's happening in the circuit, and fix if there's a problem.It's a nice way to get a grasp of building blocks of a complete system-I vote for a transciever kit using the same approach. Doesn't have to be a compact or highly 'tricked' circuit, just a straightforward modular approach with testing as you go.This will do wonders for those wanting to jump in, but can't deal with all of the hurdles at the start, such as tracking down components, reading a schematic to build from for the first time, etc. If you make the bar too high, they won't try to jump!  
Dan N7CQR

-----  
Date: Fri, 23 Jan 1998 10:53:49 -0800  
From: Laura Halliday <ve7ldh@direct.ca>  
To: qrp-1@Lehigh.EDU  
Subject: [1757] Re: Elmer project  
Message-ID: <34C8E73D.9710654@direct.ca>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Maybe it's my academic background coming through, but I'd

like to see a little more emphasis on the fundamentals.

Being able to reproduce designs from publications and being able to string other peoples' building blocks together are valuable skills, but they're brittle: what do you do when faced with a novel problem, say, a 3 volt micropower receiver? If you are appropriately equipped, you go back to whatever first principles you need and work from there.

I realise this smacks of "books", "study", even "math" - so be it. While it's terribly untrendy, you sometimes still have to swot the basics before you can have fun.

After all this, you won't be surprised to learn that I actually \*do\* recommend Introduction to RF Design as a beginner's book. Along with more hands-on books like Solid State Design for the Radio Amateur, The Art of Electronics, and the ARRL and RSGB Handbooks (they complement each other nicely). There are many more. The various De Maw books are good for the hands-on side, but please don't depend on them alone.

You can save the real fun (e.g. Wilson, Digital Modulation and Coding) for dessert. Yum! :-)

When it comes to an applied area like electronics, theory is useless in isolation. So is practice. Only by combining the two (they reinforce each other, often spectacularly) can one really learn.

...laura, Ms Bookworm

-----  
Date: Fri, 23 Jan 1998 11:22:07 -0800  
From: "Charles P. Sammut" <csammut@limbach.com>  
To: qrp-1@Lehigh.EDU  
Subject: [1758] PAINTING ALUMINUM ENCLOSURES  
Message-ID: <34C8EDDE.7BDF5B6C@limbach.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I am considering painting the enclosure and panels of my SST and would appreciate any suggestions on how to achieve good results. Also, does anyone know if OEM spray paint for motor vehicles would work in this application?

It has been about 34 years since I last painted a transceiver enclosure  
(a Knight C-100 transceiver that I converted to 6 meters).

73/72  
Charles  
K8MI  
QRP-L #42

-----  
Date: Fri, 23 Jan 1998 14:13:59 EST  
From: RangerSF5 <RangerSF5@aol.com>  
To: na5n@rt66.com, pharden@nrao.edu, njqrp@njqrp.org, qrp-1@Lehigh.EDU, epa.qrp-  
1@leigh.edu  
Subject: [1759] file download  
Message-ID: <fc3d4dc3.34c8ebf9@aol.com>  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Paul Harden,NA5N,  
Thank you very much for the information that you sent me.  
I'll keep you posted as I soon will be doing test with the 90xx and one of the  
better known kits on the market today.  
Again,thank you very much.  
Bob  
WA2HOQ QRP-1 #1437  
EPA QRP-1 #9  
ps:I worked WB4CCR in Fl.appx.12:08 am/1/23/98 He was running 65 mils under  
the worst conditions.Like any good cw op,he hung in there

-----  
Date: Fri, 23 Jan 1998 11:27:46 -0800  
From: dave\_epps@juno.com  
To: qrp-1@Lehigh.EDU  
Subject: [1760] new lcr meter  
Message-ID: <19980123.112802.3918.4.dave\_epps@juno.com>

In the latest pop elec elenco has a "new" handheld digital l-c-r meter  
with other  
features.  
dave ab5pc

-----

Date: Fri, 23 Jan 1998 14:53:39 -0500  
From: Tom Morgan <liveoak@sccoast.net>  
To: "'qrp-l@Lehigh.EDU'" <qrp-l@Lehigh.EDU>  
Subject: [1761] RE: Elmers wanted...take charge yourself  
Message-ID: <01BD280E.F806F2A0.liveoak@sccoast.net>

Mike,

This thread has been great!

I got my Novice ticket 30 years ago, and hadn't even thought about how I was going to get on the air - what equipment to buy & where to get it. I was "elmered" by George Trammell WA4RGL, who helped me build my first transmitter and arranged for me to borrow a receiver. As we built the rig, he patiently explained to me how it worked and grounded me in basic construction skills. I haven't forgotten the lessons I learned, and I will never forget his kindness.

I recently upgraded my ticket to Extra. This should have meant:

1. I could copy code at 20 WPM
2. I was knowledgeable in all facets of Amateur Radio

What this actually meant:

1. I could copy code at 16 WPM (and had several cups of coffee before the exam)
2. My knowledge was limited, but I learned the answers to the test questions

These days, there is a great amount of emphasis being placed on recruiting new hams and getting them licensed, but nothing is done to TEACH them anything!

I am on the education committee of our local radio club, and I can't wait to get a class going on the ideas expressed in this thread. You guys, keep 'em coming!

72,

Tom AF4HL

-----Original Message-----

From: mikemo@ibm.net [SMTP:mikemo@ibm.net]  
Sent: Friday, January 23, 1998 6:57 AM  
To: Low Power Amateur Radio Discussion  
Subject: Re: Elmers wanted...take charge yourself

I feel kind of guilty for starting such a long thread. Please allow me to say a few short things.

-----/snip/-----  
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-----  
Date: Fri, 23 Jan 1998 13:47:49 -0600  
From: John Burnley <JBurnley@ifmc.org>  
To: qrp-l@Lehigh.EDU  
Subject: [1762] QRP is finally fun! (Long)  
Message-ID: <s4c89f99.045@ifmc.org>  
Mime-Version: 1.0  
Content-Type: text/plain  
Content-Disposition: inline

What a difference an antenna makes! A friend introduced me to QRP a few years ago. Since then I've been struggling with a 1/4 wave vertical on 30 meters and a MFJ-9030. Contacts were scarce and DX was out of the question. Rag-chewing was something I had fond memories about in the QRO days.

There have been numerous threads about the virtues (or not) of verticals and one posting by Adrian Weiss caught my attention. He made a passing reference about making a vertical multi-band by feeding it with twin lead and going through a tuner. I thought...why not....things couldn't get any worse. About a month ago I lengthened the radiator in hopes to get onto 40 (if I'd ever build my OHR Explorer II). I ran down to the local Radio Shack (no interest....it was close and more importantly OPEN) and picked up some of the low loss twin lead. After mentally calculating the proper length I picked up the 50 ft bundle. Three hours later I discovered I was 8 ft short (of course). After the appropriate vocabulary and a splice job the antenna was ready to test on 30 meters. The results were outstanding. Everyone I called answered! After finishing QSO's stations called me. I've even picked up an XE2 (559), CM6 (569), and a VP5 (599). Now I'm not proclaiming that a vertical an!

tenna is the answer to all problems (there are plenty on this list who could successfully argue against that statement). What I am suggesting is that if you are having marginal results with your QRP operating, check your antenna system first! You may find your problem there. Now I'm having a blast operating and hope to see you on 30 meters! My success rate is now not 100 percent, but I'm not afraid to give any station a call.

BTW, any QRPers in the Atlanta or Raleigh-Durham area?

72/73,

John NU0V  
Urbandale, Iowa  
QRP-ARCI, NW QRP, NorCal, QCWA, CQC, NEQRP (I really miss the newsletter), and

GQRP

-----  
Date: Fri, 23 Jan 1998 11:54:30 -0800  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
To: qrp-1@Lehigh.EDU  
Subject: [1763] NorCal Paddles, 3rd Run  
Message-ID: <3.0.1.32.19980123115430.00740ef0@dpol.k12.ca.us>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

We have sold out of the first two runs of NorCal K8FF Paddles, but the good news is that we anticipated that, and Doug Hauff of SLM has a target delivery date of Feb. 1 for the next run. I was talking with Wayne Smith, K8FF, the designer the other day, and he suggested that for this run we move the paddle handles to the inside of the dit and dah shafts, resulting in much narrower spacing for the handles. He said that he did it on a few of the ones that he has made at home, and he really likes the feel. I called Doug Hauff and he agreed to reprogram the CNC machine to put the cut out on the other side, Paul Harden was the next call. He agreed to modify the drawing for the manual, so it is a done deal. Therefore all of the next run of NorCal K8FF paddles will have the new "narrow spacing" which is very similar to the Bencher - Brown Brothers feel.

If you are interested in ordering a set of the NorCal K8FF paddles, you are ordering an unfinished kit of parts. All of the parts are there, but you have to finish and fine tune them. They are easy to build, and the job can be done with common hand tools (ask Paul Harden and Southwest Airlines, but that is another story). If you would like more details see them on the NorCal Web page. The cost of the kit is \$30 plus \$5 shipping and handling in the US, \$10 shipping and handling for Western Europe and Canada, and \$15 shipping and handling for the Pacific Rim. To order paddles (shipping date probably after Feb. 15) send your check or money order (US FUNDS ONLY) to Jim Cates, 3241 Eastwood Rd., Sacramento, CA 95821. Make sure that you make out the check to Jim Cates, NOT NORCAL. For those of you in the United Kingdom and Western Europe. You may order your paddle kits from our European agent and pay in English pounds. The cost is 25 UK Pounds. To order send your checks (English Pounds Only) to:

Steve Farthing,G0XAR  
38 Duxford Close  
Melksham, Wiltshire, England  
SN12 6XN.

Make checks out to Steve Farthing, NOT NorCal. Steve will forward the



orders to Jim via email and your kit will be shipped from California via small packet air. The objective of having a European agent is to make it easier for NorCal members in the UK to order club kits.

Please remember that I am to get delivery of the machined parts on Feb. 1. I still have to put the kits together, package them and then get them to Jim in Sacramento so that he can mail them. I anticipate it will take me 2 weeks to do so, so please be patient.

Also, no we will not sell just the paddle arms. Due to the CNC process used, parts for paddles are made in sets. It is not feasible to make just paddle arms. The cost for this kit is very, very reasonable considering that when you get done with the kit you have a set of paddles worth 3 or 4 times what you paid for it. In other words if you ask us to sell paddle arms, the price is \$30 plus shipping and handling depending on where you live, and we will throw in the rest of the paddle parts too!! 72, Doug, KI6DS

-----  
Date: Fri, 23 Jan 1998 14:54:48 -0500  
From: Derek Brown <DBrown@RFMD.com>  
To: "'QRP-L'" <qrp-l@Lehigh.EDU>  
Subject: [1764] Website for USED HP Calculators  
Message-ID:  
<c=US%a=\_%p=RF\_Micro\_Devices%l=PACHACUTEC-980123195448Z-25971@proxy1.rfmd.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

I know that it's not QRP related, but I saw it posted HERE a while back. I have a coworker who is interested in a used HP-48G. Someone posted the name of a company which deals in used / refurbished HP calculators. Please re-send this info to me directly.

72 de Derek Brown, WF4I  
Greensboro, NC  
dbrown@rfmd.com

-----  
Date: Fri, 23 Jan 1998 20:02:13 GMT  
From: adams@chuck.dallas.sgi.com (Chuck Adams)  
To: qrp-l@Lehigh.EDU

Subject: [1765] UTC in HI  
Message-ID: <199801232002.UAA10652@chuck.dallas.sgi.com>

Gang,

Seems to be some confusion. I pasted George's stuff with the other times. His times in HI are UTC as are all the other times in the Novice list.

Not to worry.....

: -)

dit dit

Chuck Adams K5FO CP-60  
<http://reality.sgi.com/adams> adams@sgi.com

-----  
Date: Fri, 23 Jan 1998 14:29:21 -0600 (CST)  
From: Adrian Weiss <aweiss@sunflowr.usd.edu>  
To: QRP-L@fidoii.CC.lehigh.EDU  
Subject: [1766] RE: Effective Height -- more stuff  
Message-ID: <Pine.SOL.3.94.980123134422.20833F-100000@sunburst>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi gang:

My post about effective height left out some specifics that might be helpful and left some topics hanging. A little more...

Remember, three zones are important"

- 1) directly under the antenna
- 2) the "near-field" or Fresnel Zone
- 3) the skip point down range.

Ground conductivity is important at all three because of two factors: 1) ground loss, and 2) reflection coefficient vs. phase-shift.

Some figures on ground conductivity which is given in "mho/m" (the definition of which I forget at the moment (for 3-30Mhz):

| type      | mho/m | approx depth of penetration at 90-deg |
|-----------|-------|---------------------------------------|
| sea water | 4-5   | 0.04-0.14 m                           |

|                  |                                                       |     |
|------------------|-------------------------------------------------------|-----|
| fresh water      | $10\text{e-}3$                                        | 9m  |
| wet dirt         | $5 \times 10\text{e-}3$<br>to $2 \times 10\text{e-}2$ | 3m  |
| average dirt     | $5 \times 10\text{e-}4$<br>to $5 \times 10\text{e-}3$ | 16m |
| dry poor<br>dirt | $5 \times 10\text{e-}5$<br>to $10\text{e-}4$          | 90m |

Although fresh water penetration is deeper than wet dirt, it is the best conductor, and less signal loss occurs. Now, the depth of penetration decreases as the angle of incidence decreases, so at 30-deg into wet dirt, for example, the signal doesn't actually penetrate 3m. Once the signal hits the wet dirt, the refraction or bending process begins as it travels from the air medium into and thru the wet dirt medium. So, instead of the path being an inverted triangle with the apex 3m under the surface, the wave will actually bend into an arc.

So, high angles of incidence experience greater dirt loss.

Now, the near-field or Fresnel Zone is where the downward wave is reflected back upward to recombine with the skyward direct wave from the antenna. As I mentioned before, the height of the antenna and the desired angle determine where the Fresnel Zone is. It actually is not a point on the ground as would appear from drawing a straight line from the antenna downward to the ground. If it were, you could figure out the point from trig. and walk out there and layout a big sheet of aluminum and get a perfect reflection with no loss. They do that with seismic-sensor mirrors systems using lasers to accurately measure the increase in height of the mountains after the Sierra Madre quake of '92 -- Mt. Wilson rose about 1.25" if I recall correctly. Radio waves are not like laser-beams that are focused to a pin-point. Rather they are like the light from a regular flashlight bulb without anything behind it. That light and a radio wave disperses spherically once it leaves the wire. The energy that left at exactly 45.23-deg spreads out and illuminates not just a pin-point, but a whole wall or whatever. So, the downward radiation at, say 32-deg, spreads out to "illuminate" a large elliptical area of the ground at a distance from the antenna determined by geometry of the situation.

So, if the antenna is, say 25-ft above dirt, and the desired angle is 32-deg, you do the  $a^2 = b^2 + c^2$  routine (or whatever it is -- VE3ERP's fantastic HAMCALC program has this triangle stuff built in so a guy forgets the formulae thanks to him!) and figure out the distance to

the point, and then draw a ellipse centered on the point with the long axis along the direction of interest. It could figure out to a zone extending from 250-500-ft from the antenna. Next, look out the window and see what is there. A clear open field -- great! Obstructions? What kind? The metal factory out there spells big loss in absorption and reflection of the radio wave back toward the antenna or wherever the planes point to. In town, it's usually some houses -- full of electrical wiring and usually copper plumbing (PVC in new housing developments probably eliminates that problem). Life in the city is not simple for QRP'rs! The wave has to contend not only with the quality of dirt in the Fresnel Zone, but the presence of obstructions. Trees generally don't hurt. Then there all the power lines (again, buried lines in new developments eliminate these) that are perfect reflectors and absorbers of radio waves. In one sense, there is no point in worrying about eliminating transmission line radiation in a city environment -- a lot of other things in the environment are also radiating (or re-radiating), so the radiation pattern is going to look nuts no matter what!

Notice how the environment geometry can actually help. If you locate an antenna on the side of a slope, the downward wave is reflecting more horizontally than it would from level ground. Hence, the downward wave at 32-deg is not reflecting upward and combining with the skywave at 32-deg, but with a lower angle skywave. Hence, reinforcement at a lower angle of radiation for greater distances. Likewise, the grazing angle down the slope is smaller and the penetration shallower. QRP'rs who live on the right side (i.e., which drops in the direction of interest) of a hill or slope actually have an advantage in terms of lower radiation angles. The bad news should be obvious -- in the wrong direction, the downward wave is reflecting upward to reinforce of higher angle skywave. If you live at the top of the hill, no problem -- put antennas on both sides and switch for built-in low-angle gain and a null off the backside.

So much for now!

73, Ade W0RSP

-----  
Date: Fri, 23 Jan 1998 15:40:37 -0500 (EST)  
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>  
To: Tom Morgan <liveoak@sccoast.net>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [1767] RE: Elmers wanted...take charge yourself  
Message-ID: <Pine.SOL.3.94.980123151600.9717C-100000@larry>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

> I recently upgraded my ticket to Extra. This should have meant:  
> 1. I could copy code at 20 WPM  
> 2. I was knowledgeable in all facets of Amateur Radio  
> What this actually meant:  
> 1. I could copy code at 16 WPM (and had several cups of coffee before the  
> exam)  
> 2. My knowledge was limited, but I learned the answers to the test  
> questions  
> These days, there is a great amount of emphasis being placed on recruiting  
> new hams and getting them licensed, but nothing is done to TEACH them an  
> ything!  
Tom,

Unfortunately, I have to agree with you. I used to teach an "upgrade" class--a structured theory class meeting two night a week for about the same length of time as a school semester. Would start with about 25-30 and have a loyal dozen at the end. After all, folks do have family matters, etc. Covered all the theory on the exam, with plenty of fill to make it hang together. Every singificant principle appeared twice to make sure it got connected with things coming and going.

Taught this for about a dozen years in 2 different cities. Then the new exams appeared, and the club informed me that this type of class was no longer wanted. Too technical. Too slow. Etc.

Since then, I have been encouraging the League and others to develop more and better post-licensing continuing materials--even wrote a long proposal, a summary of which appeared in the annual ARRL Educational Workshop Proceedings. Chief obstruction: cost vs. income potential.

Essentially, market conditions apparently are such that if there is to be significant post-licensing educational materials, they will have to be boot-strapped by individuals and/or groups willing to make the personal investment in time (not to mention \$) to create them. And the results will inevitably bear the stamp of the creators.

There are two key ingredients possessed by the QRP group: 1. a number of strong organizations which can lend various types of support to such an effort (including moral support); and 2. a very good number of experienced educators at all levels who can formulate good lesson plans and write clearly in a style directed toward the type of person and background who might be interested in pursuing more education in electronics.

I hope someone is gathering all of the ideas put forth in the discussion, because there have been many good ones expressed. They might not all get into plan A (whatever that turns out to be), but they need to be saved for reference for plan B.

I also hope someone is beginning to think about gathering together the people to make it happen--not just from the kit/board productions side, but also from the carefully structured and written (and/or audio/video taped, etc.) perspective.

It has been clear for a very long time (ever since day 1 of the new exams) that there is a need for post-licensing (or pre-licensing, for those who hear about it before getting a ticket) education. Among all the sub-interests in amateur radio, QRP offers the broadest spectrum of interests in both the hands-on aspect and the why-it-works-the-way-it-works facet of education.

So I finally hope that the exchanges are not just momentary enthusiasm, but the beginning of a long-term and durable project of continuing education in an area where so many others fear to tread.

-73-

LB, W4RNL

|                      |            |                         |         |          |       |     |        |       |               |
|----------------------|------------|-------------------------|---------|----------|-------|-----|--------|-------|---------------|
| L. B. Cebik, W4RNL   | /\         | /\                      | *       | /        | /     | /   | (Off)  | (423) | 974-7215      |
| 1434 High Mesa Drive | /          | \                       | \       | ----     | \     | --- | (Hm)   | (423) | 938-6335      |
| Knoxville, Tennessee | /\         | \                       | \       | /        | /     |     | (FAX)  | (423) | 974-3509      |
| 37938-4443 USA       | /          | \                       | \       | \        |       |     |        |       | cebik@utk.edu |
| QRPARCI 2572         | G-QRP      | 7203                    | CQC     | 125      | NEQRP | 347 | NORCAL | 1111  | MIQRP 1432    |
| NWQRP 401            | ARRL Life: | Technical & Educational | Advisor |          |       |     |        | 10-10 | 41159         |
| QCWA 13211           | scQRP      | 28                      | CW Ops  | QRP Club | (VK)  | 476 | FISTS  | 2600  |               |

-----  
Date: Fri, 23 Jan 1998 15:53:02 -0500 (EST)  
From: dave dabay <kd3pc@usit.net>  
To: qrp-l@Lehigh.EDU  
Subject: [1768] trade apple IIGS for qrp gear  
Message-ID: <199801232053.PAA17887@transfer.usit.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Guys and Girls,

Cleaning up some of the antiques and came across and nice little IIGS by APPLE, missing the adb mouse no hard drive, but has an external 3.5 inch

diskette drive.

Super machine and want to trade for QRP gear, need a wattmeter or old gear.

Thanks

dave

Dave Dabay KD3PC QRP-L #365

Race at Elk Creek Dragway

-----  
Date: Fri, 23 Jan 1998 15:51:37 EST

From: ka7you@juno.com

To: QRP-L@Lehigh.EDU

Subject: [1769] Want: Ten-Tec Accessory plug and Info??

Message-ID: <19980123.130252.7751.4.KA7YOU@juno.com>

Does anyone have a source for the plug which is required for the accessory socket on the Ten-Tec 509. It is six round pins, and shaped a little like a DIN plug. It is used to jumper the signal from the IF to the audio chain when the accessory CW filter is not installed. I would also like one for the 515, but it looks like a standard Molex design, so it should be easy to find.

I also need a copy for the schematic of the Model 208 audio (CW) filter used on the TT 509, and one of the the Model 208A audio filter used on the TT 515.

I own both of these rigs, and I'm interested in trying to mate an active (even DSP maybe) filter into the IF/audio loop, and would like the plug and schematics for this reason.

I haven't been able to get through to Ten-Tec yet. Every time I call the tech number, it is busy. I need to order a dial cord assembly, and can probably get the plug then, if I can ever get them on the phone.

7 3,

Rod Johnson KA7YOU from CN97ak near Issaquah, Wa. 160M thru 1296 MHz (3456MHz still in the wings)

-----  
Date: Fri, 23 Jan 1998 16:50:46 -0500 (EST)

From: "Scott Rosenfeld [NF3I]" <ham@w3eax.umd.edu>

To: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>

Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [1770] RE: Elmers wanted...take charge yourself  
Message-ID: <Pine.LNX.3.95.980123164747.16151H-100000@w3eax.umd.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

The Laurel ARC's Novice/Tech class, held every Monday night from September thru the end of November, had 24 people at the start and what I believe to be 16 graduates.

It's great to hear them on the air all over the DC area. One of them recently upgraded to General.

To answer the next question, the kids I started teaching in October? Still working on it. It's tough to be a kid and keep with this stuff in addition to regular school when your bent isn't "naturally technical."

Still tryin' though.

\* Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 \*  
\* 6m 82 grids on 8w \* DXCC WAS WAC \* QRP-L #147 \* QRP ARCI #9054 \*  
\* <http://w3eax.umd.edu/~ham> \* ARRL Life Member /Laurel ARC/UMARA \*  
\*\*\* 301-549-1022 h 301-982-1015 w \*\*\* 35 wpm HF mobile CW Neon \*\*\*

-----  
Date: Fri, 23 Jan 1998 14:13:34 -0800 (PST)  
From: Sam <kc5tja@animeonline.ml.org>  
To: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [1771] RE: Elmers wanted...take charge yourself  
Message-ID: <Pine.LNX.3.96.980123140956.25538A-100000@animeonline.ml.org>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

> I also hope someone is beginning to think about gathering together the  
> people to make it happen--not just from the kit/board productions side,  
> but also from the carefully structured and written (and/or audio/video  
> taped, etc.) perspective.

I put forth a proposal on this list to start a new on-line publication, which goes through and explains everything about building a transceiver. No one has yet responded, but perhaps that document, or another volume thereof, can be expanded to include what you are referring to.

> So I finally hope that the exchanges are not just momentary enthusiasm,  
> but the beginning of a long-term and durable project of continuing



> education in an area where so many others fear to tread.

Highly agreed. If someone wants me to re-post my proposal on this matter, I will. I'm wondering if anyone received it, or if they're just ignoring it.

=====

-| TEAM DOLPHIN |-  
Chief Architect and Project Founder  
(web page under construction)

PGP 5.0 Public Key Available Upon Request.

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Date: Fri, 23 Jan 1998 13:16:26 -0800  
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)  
To: qrp-l@Lehigh.EDU  
Subject: [1772] 1997 Back issues of QRPp have Arrived (Long)  
Message-ID: <3.0.1.32.19980123131626.00740ef0@dpol.k12.ca.us>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

(Please forgive the length of this posting, but I am trying to answer all perceived questions.)

Yesterday I got home from school at 4:00. Sitting in front of my house was the Big Brown Truck!! Hey, I have some packages. The UPS guy has a frown on his face. I ask if he has packages for me. He says boy do I have packages. Then he points to the inside of the truck and I see box after box after box of stuff all addressed to me. IT'S THE 97 BACK ISSUES FROM THE PRINTER!! Happy dance time for me. Now I can ship those back orders out!!! Yes. The UPS guy grins when I offer to back my truck up to his and just shift the boxes over. No lifting for him and he agrees. He's happy, I'm happy, and those of you who had back orders, you will be happy in 3 or 4 days. I have the boxes all packed and will take them to the post office right after school today and mail them off Priority mail.

What are the 97 Back Issues? They are the compilation of the 4 issues of QRPp that were printed in 1997. The issues are bound together with the GBC plastic finger binders, have a nice cover from cover stock, and they contain 308 pages and the following articles:

Spring 1997

>From the Editor, KI6DS

Subscription Rate Takes an Increase, KI6DS & WA6GER  
Return of the Gimmic Capacitor, K6BSU  
Comparing Filters in the NorCal 40A and Sierra Transceivers, KD6PFL  
The Rambo Audio Board = More Audio for the HW-8, K6BSU  
RF Fun with the RF-1, AC6LA  
ScQRPion Visual SWR Indicator SVSR, KK7BD  
QRP to the Field Contest Announcement, WU7F  
A Treasure from a True Friend, W7JDZ  
Resonant Speakers for CW, WB2CWA  
OHR-100 Review, K5FO  
The E-Dial: Electronic Dial for VVC Tuned QRP Rigs, KD7S  
The SST: A Simple Superhet Transceiver for 40/30/20M, N6KR  
The Good 'N Cheap Dummy Load, KQ6FR  
The W6MMA SLV Portable Antenna, W6MMA  
The Ol' Kenwood Stories, N6WG  
17 Mods for the "38" Special, Various Authors  
K8IQY's Optimized "38 Special", K8IQY  
QRP Hints and Kinks: Building Enclosures, NA5N  
Centerfold: SST and 38 Special Schematic Diagrams

#### Summer 97

>From the Editor, KI6DS  
Tuning the T-Match in the St. Louis Tuner, K5TX  
The MRX-40 Mini Receiver, K8IDN  
PVC Gusher II, N2CX  
Rainbow Tuner Application Notes, N2CX  
Thump Thoughts, N7IVR  
Adventure Radio Society and Flight of the Bumble Bee, AA7QU  
Oscilloscopes, Part 1, NA5N  
Dayton in Pictures, AF7Y  
QRP Plug Paddles, N6MSQ  
The DB 80 an 80 meter SSB/CW QRP Transceiver, VK3CCA  
TiCK Talk: A Review of the TiCK-2 Keyer Chip, KD7S  
Double Your Cascade Output on 20, W6EMD  
1997 Dayton Building Contest Results, KI6DS  
Area 51 QRP to the Field Report, KI6DS  
Build a Simple Portable Operating Table, KI6DS  
Fort Tuthill QRP Symposium Announcement  
West Coast QRP Symposium Announcement  
QRP Hints & Kinks, NA5N

#### Fall 97

>From the Editor, KI6DS  
A Triangular Array for 40 Meters, WA5VQK  
Optimized 20 Meter SST, W6EMT  
Refinements to the 10 Watt EP-2, W6EMD  
Accurate QRP RF Power Measurement, W4LJD  
Bandspread for the Sierra, W6ZH

Bandspread Tuning for the 38 Special, N7IVR  
The Devil Made Me Do It, K1MG  
The K1MG Digital Clock/Counter, K1MG  
FYBO '97 Report, AB7TT  
Building the TiCK-2 Surface Mount, WB6BOR  
ST. Louis Radials, NF0R  
Get on 6M FM QRP the Cheap Way, N6KP  
The Penultimate QRP Accessory, W4LJD  
Homebrewing the Sierra, KG5N  
Iambic Keying, What's It All About?, K5FO  
The 38 Special the Arizona Way, AB7MY  
A Simple 80M DC Receiver, SM7UCZ  
QRP Rig Outputs on a Spectrum Analyzer, NA5N  
QRP Hints and Kinks, NA5N

Winter 97

>From The Editor , KI6DS/M0BIV  
Dayton Building Contest Announcement  
1998 QRP to the Field Contest Announcement, AB7TT  
HW-9: The (nearly) Complete Guide to the Mods, AB7MY  
G-QRP Club Rochdale Convention Reports , G0BPS & G4WIF  
Use Spice to Design Your 2N2222 Receiver, AE0Q  
NorCal QRP to the Field Results - 1997, WU7F  
My 2N2222 Rig Design for the NorCal Dayton Building Contest, KD1JV  
The K8FF Paddle, K8FF  
Pacificon Report from N2APB, N2APB  
Message Recorder Keyer, K6BSU  
4 Watts from your GM-10 (and other mods), W6EMD  
Adding CW to the Epiphyte, G3MFJ/AB7VN  
Troubleshooting for Fun (and some mods to the SCAF filter), WJ2V  
A Couple of Mods for the OHR SCAF VA3DKS  
Suped Up OHR SCAF, N6HCS  
Mods to Improve the OHR SCAF, AA0XI/VK5FN  
Adding Sidetone & Receive Offset to the Pixie, the TiCK Way, K1CL  
How to use an Oscilloscope, Part 2, NA5N  
QRP Hints & Kinks, NA5N  
Legal Gobbledegook, Back Issues, Crystals, Paddle Kit Ordering information,  
KI6DS, WA6GER, NA5N

72, Doug, KI6DS

-----  
Date: Fri, 23 Jan 1998 16:15:33 -0500  
From: Michael Neverdosky <MichaelN@cycat.com>

To: qrp-l mailing list <qrp-l@Lehigh.EDU>  
Subject: [1773] FS MFJ-9020  
Message-ID: <34C90875.B826C0C5@cycat.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I am selling my MFJ-9020 to help finance a better main rig.  
For those who don't know;

CW only  
20 meters, 14000-14075  
Superhet  
5 watts out

I have the original box and manual.  
\$100 shipped in the lower 48.

michael N6CHV

-----  
Date: Fri, 23 Jan 1998 13:30:58 -0800  
From: Jeff Grudin <grudin@pacific.vdbs.com>  
To: QRP-L <qrp-l@Lehigh.EDU>  
Subject: [1774] NOT QRP - - A STORY  
Message-ID: <34C90C12.2EB@vdbs.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=iso-8859-1  
Content-Transfer-Encoding: 8bit

The Joy of DX

It has been interesting starting my ham career at the bottom of the solar cycle. I began by taking a beginning class being offered locally in 1994. Our instructor, being a CW buff, kind of pushed heavy on the CW. I was elected to be the first to try out my new fist on the air. We picked a quiet spot on 20 M and after sending QRL a few times, the instructor turned it over to me. My very first time on the air. With shaking hands I taped out my first CQ. Almost before I had finished my CQ, back came ....DE VK40D. My first QSO was with Tom Dowling in Buderim, Australia. From that very first QSO halfway around the world, I was hooked.

Since that time I have pursued DX aggressively. I have been able to make contacts in all corners of the world with the exception of one, China. I watch the DX cluster regularly and whenever a BY shows up, I

turn on the radio and actively try.

Yesterday morning I woke up about 4:30AM and couldn't get back to sleep. I thought that I would turn on the radio and see if anyone else was awake. Took a look at the DX cluster and there he was, BY1QH, on 40M. Swung the beam around to 340, and I slowly tuned him in 7.006. ....QRZ BY1QH UP.. He was S4 on my meter, loud and clear. I tuned up 2 kHz, and there was a small pileup. I guess not many stateside stations on at 4:30AM. This should be a piece of cake. I set up my rig for split ops and waited for my cue. ....TU BY1QH QRZ.. I started to send my call. When all of a sudden lights started flashing, \*High SWR\*. In my half awake stupor, I couldn't quite figure it out. I set to checking connections and not finding any bad ones decided the problem must be at the antenna. I blamed the windstorm that came through the day before. Arrgh another one missed.

Later that day, when I was fully awake, I realized that an antenna switch on my workbench had my coax switched to let me test a rig on the bench. My working rig wasn't even connected to an antenna!

I decided to set my alarm and get up to try again this morning. If I were lucky, old BY1QH would be on the air at about the same time. I turned on my packet station and tried to connect to the DX cluster. All I could get was a "failure to connect" message. Back to the old fashioned method listening.

Tuning up the band slowly I hear a loud signal in QSO on 7.006. Signals of S9, discussing the weather, probably not the object of my hunt. Then they sign ....K5--- DE BY1QH QRZ USA UP..

With signals this loud and my antenna now connected, I should be able to get this one. Again I find the other stations about 2 kHz up and set up my split. I wait .... BY1QH QRZ UP.. I send my call and then I hear ....AC6#####. That all too familiar QRM. My daughter had gotten up and turned on the microwave. Done in by one of my own.

A quick run to the kitchen put an end to the QRM. Back at my post I listen again. ....BY1QH QRZ UP.. Again, I send my call. At that point I hear the sweetest sound any Dx'er can hope for ....AC6KW 599. I let out a loud scream of excitement. I send his report and fall back into my chair, my heart pounding and a big smile on my face.

My XYL runs into the room to see if I have electrocuted myself. She asks if I am all right. With one of those S\_\_\_ eating grins on my face, I proclaim, "I just worked China". She replies, "yeah right, you mean China town!" We both have a good laugh and set off to get ready for work.

73 de Jeff AC6KW  
grudin@vdbbs.com

QRP-L #16 Private Practice : Companion Animals and  
Exotics  
Norcal QRP #1292 Ocean Animal Clinic / Cat Clinic of Santa  
Cruz  
California Santa Cruz,

QRP'ers do it with less energy (but lot's of enthusiasm)!

Date: Fri, 23 Jan 1998 16:41:42 -0500  
From: Bill Howell <bhowell@mail.utexas.edu>  
To: qrp-l@Lehigh.EDU  
Cc: sgordon1@ibm.net  
Message-ID: <199801232141.QAA180782@nss4.cc.Lehigh.EDU>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Scott - N4JXI Wrote:

Does anyone have or know of some freeware for my Kantronics KAM tnc  
thought I might get on for some grp rtty.

//////SNIP////////

Scott...try <http://www.goodnet.com/~gjohnson/xpwin.htm>

Download the Win95 version. You get 100 uses of the program, then it times out. If you like it after trying it, the price is about \$80.

I use it and it works fine.

I tried the Beta Win95 from Kantronics and didn't have much luck getting it to run.

72.

Bill Howell  
University of Texas at Austin  
Performing Arts Center  
Electronic Maintenance  
N5ALO QRP-L #415

-----  
Date: Fri, 23 Jan 1998 17:16:45  
From: Steven Weber <kd1jv@moose.ncia.net>  
To: qrp-l@Lehigh.EDU  
Subject: [1776] Re: Elmers wanted...take charge yourself  
Message-ID: <3.0.3.16.19980123171645.2bbf8e22@mailhost.ncia.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

We all know kits are the best way to get started in homebrewing as they do at least teach you the mechanics of building stuff. Any kit could be turned into an "elmer" kit simply by looking up the circuits in the handbooks and text books and reading about how they work.

Once you have the mechanics down, you can then try your hand at building some things from scratch, using magazine articles. Then you can then go onto doing your own versions by gluing building blocks together.

But the best way to learn is to find a problem to solve and then figure out how to solve it. A good example of this is the current Norcal 2N2 building contest. Your given a problem, to build a rig using 2N2 transistors. You look through the books and find ideas for all the circuit blocks and decide how to string them together to make them work as you want. Lots and lots of education here.

As an example, I wanted to learn how to program the 8051 microprosseser chip. So I bought the tools I needed to start and then came up with a problem to solve. I decided to make a keyer which would talk to a personal computer. With this task in mind, I was then able to figure out what I needed to do to make it work. By the time I was done, I had learned all the program instructions and learned how to structure a computer program to make it so what I wanted. Until I had a practical problem to solve, none of the theory made sense.

So, you can study all the theory you want, but you really don't learn it until you use it to solve a practical problem.

One other thing, to be succesfull at any hobby, you need to have the proper tools. You need them to learn the skills and you need the money for the equipment. I don't care if your Golfing, hiking, knitting, model building or wood working, you need the tools to learn the skills. The better the tools you can get, the beter results you will achive with less work.

73,

Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

-----  
Date: Fri, 23 Jan 1998 17:16:20 -0500  
From: "Keith Hamilton" <khamilton@cisnet.com>  
To: <qrp-1@Lehigh.EDU>  
Subject: [1777] Frequency Counter  
Message-ID: <01bd284c\$88a6cbe0\$3f90b3cc@khamilton.cisnet.com>  
MIME-Version: 1.0  
Content-Type: multipart/alternative;  
boundary="-----=\_NextPart\_000\_0004\_01BD2822.9FD0C3E0"

This is a multi-part message in MIME format.

-----=\_NextPart\_000\_0004\_01BD2822.9FD0C3E0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

I am in the process of building an OHR 100A and the alignment calls for use of a frequency counter. I have always thought a counter would be nice to have so this may be a perfect excuse, errrrr I mean a perfect time to get one!

I'm lost! My instructions say to use a 10:1 probe but how can=20 I tell if my counter will have one?

Does anyone know a good (read inexpensive!) counter for an infrequent user like myself to purchase?

Any guidance will be GREATLY appreciated! 73!

Keith Hamilton, W8GX

-----=\_NextPart\_000\_0004\_01BD2822.9FD0C3E0  
Content-Type: text/html;  
charset="iso-8859-1"



```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD W3 HTML//EN">
<HTML>
<HEAD>
```

```
-----= NextPart 000 0004 01BD2822.9FD0C3E0--
```

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Date: Fri, 23 Jan 1998 14:33:57 -8  
From: "Dan Hogan" <dhhogan@lightside.com>  
To: qrp-l@Lehigh.EDU  
Subject: [1778] EMTech  
Message-ID: <199801232232.0AA10513@mail.lightside.com>

Anyone have an Email address for Roy Gregson? I couldn't find one at the EMTech web page.

Thanks.

Dan Hogan WA6PBY  
ARRL-VE\*QRP-L\*QRP-ARCI\*NorCal\*CQC\*Fists\*G-QRP\*ARS\*

-----  
Date: Fri, 23 Jan 1998 16:20:57 -0500  
From: rhiller@sysdev.com (Rick Hiller)  
To: qrp-l@Lehigh.EDU  
Subject: [1779] Re: CW in a song  
Message-ID: <3.0.5.32.19980123162057.009a19c0@stephen.sysdev.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Hey, Man.....ever hear that Beethoven song, Man? About the war, Man! It has a bunch of V's in it, Man. Kind of goes dit dit dit dah....Man. See Man, it's a V Man. Farout Man. CW in a song, Man....I've done that, Man.

Later, Man.....

PS...Beatles, Iron Butterfly, Three Dog Night, Thomas Dolby, to name a few more all have songs with CW. Think we should start up a news group....rec.music.songs.withcw

(TIC--couldn't resist)

-----  
Date: Fri, 23 Jan 1998 17:41:15 EST  
From: ka7you@juno.com  
To: QRP-L@Lehigh.EDU  
Subject: [1780] AA battery failure(long?)  
Message-ID: <19980123.145233.7751.6.KA7YOU@juno.com>

I just found a copy of a letter that I had written over two years ago, to

the Duracell Battery Company. I never received a response, in the way of an explanation, from their technical department, so I thought I would pose the question to the group.

I was using a borrowed MFJ 259 SWR analyzer and realized I was hearing a 'hissing' noise from inside the case. There was no smoke, and the unit appeared to be operating normally.

I shut it off, and opened the case to find a greasy feeling liquid on the inside of the case around the battery area. I found the failed cell had leaked around the negative end of the cell casing. I washed out the case and cleaned around the battery holder, installed a new set of batteries, and everything seemed to work normally.

Later I brought out the battery tester, which provides a 100ma load on 1.5 volt cells. Each cell was tested and the voltage was measured with a digital meter. Seven of the cells tested between 1.29 and 1.38 volts under the same load. The eighth one, and the one which had leaked the fluid, measured 1.71 volts UNDER LOAD.

Now my question is: What mechanism can cause a single cell to read 1.7+ volts when it has spent it's entire life in an 8 cell string, and the others have been uniformly depleted. All the cells were in the correct orientation in the holder, and there were no signs of physical abuse to them.

The MFJ unit draws less than 200 ma when operating, and the battery set was installed some time before, but it had been used only once for a brief period prior to my use. All eight cells had the same ("BEST IF INSTALLED BY JAN 99") date code on them. I also called MFJ, and they suggested I send the analyzer back to them to have it checked out. Since it was a borrowed unit which seemed to be operating correctly with new batteries, I declined. The unit still operates correctly after two years with no re-occurrence of the symptoms.

When I called the people at Duracell, they could not offer any explanation for the occurrence, but the person I spoke with was in the customer service department, and not a technician or engineer. They did offer to send me a set of new batteries immediately, which I accepted.

I just found the original set of batteries in a bag, and so I tested them again. All eight test good ( I didn't measure the terminal voltage with a meter, I just did a go/no-go test) on the same tester, although in order to get a connection, I did have to scrape a very heavy crust from the negative end of the one cell which had leaked.

This world just gets curiouser and curiouser...

Curious, from the Great NorthWET

Rod Johnson KA7YOU from CN97ak near Issaquah, Wa. 160M thru 1296 MHz (3456MHz still in the wings)

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Date: Fri, 23 Jan 1998 17:48:40 EST  
From: kd4kzq@juno.com (jim norsworthy)  
To: qrp-l@Lehigh.EDU  
Subject: [1781] SWR/Tuner/FS Meter/Modulation Meter  
Message-ID: <19980123.164413.6871.0.kd4kzq@juno.com>

Hi Gang

I recently aquired this ' super device ' at a swap meet. It didn't have any documentation for it's use or print of it's circuit. It is small and looks very similar to a RS SWR/FS meter as far as general shape goes. The name on the front is Colt with a registered trademark symbol and the model is a SWR-3.

It has a 'tune' and 'load' knob that are attached to some caps. and the tuner portion can be switched in or out. It has a power range switch for 1, 10, and 100 watts( although 100watts on the small caps seems very far fetched). There are two other switches, 1) PWR-SWR/FS-MOD and 2) FWD F.S. SET MOD/REF MOD which are somewhat self explanatory. A vertical level adj. slide pot that is marked 'DLB' are the only other controls. A multi-use meter is on the left front.

There are two coax connectors on the rear, one for antenna and the other for TX. Finally there is a screw-in for the Field Strength antenna ( appears to be a small whip type) on the rear also.

Has anyone got one of these or have any info on it? Any help would be greatly appreciated. I was planning on using this with my QRP+ if I can figure out how it operates. Too bad it won't take a random wire but I can use it on my converted RS SWL 6 band dipole.

Tnx in advance fer any info.

72/73 de Jim KD4KZQ

-----  
Date: Fri, 23 Jan 1998 16:17:13 -0600  
From: "Marshall Emm" <mgemm@mtechnologies.com>  
To: cqcllist@lists.csn.net, qrp-l@Lehigh.EDU  
Subject: [1782] CQC Banquet  
Message-ID: <199801240016.RAA07881@edison.chisp.net>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7BIT

Don't forget the CQC banquet tomorrow night-- and that applies to any of you "flatlanders" who might be in the Denver area. Everyone is welcome, spouses and harmonics included.

It's at the Country Harvest Buffet, at 740 Peoria St in Aurora (near 6th and Peoria). There's a map on the web site:  
<http://www.mtechnologies.com/cqcevent.htm>.

Hope to see you there...

73  
Marshall Emm  
N1FN/VK5FN  
n1fn@mtechnologies.com  
Milestone Technologies  
Software, kits, tools...  
<http://www.mtechnologies.com>  
(303)752-3382  
--

-----  
Date: Fri, 23 Jan 1998 17:25:36 +0000  
From: "Rod Logsdon" <bike4life@bikerider.com>  
To: qrp-l@Lehigh.EDU  
Subject: [1783] Re: FS: MFJ-9020  
Message-ID: <199801232325.RAA24176@mailhost.chicago.il.ameritech.net>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7BIT

The MFJ-9020 which I recently posted for sale has been sold. Things happen fast on this list!

Rod Logsdon ... WK9T  
Carol Stream, IL  
QRP-L # 616  
bike4life@bikerider.com

-----  
Date: 23 Jan 1998 18:47:51 -0500  
From: Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>

To: qrp-l;;  
Subject: [1784] BUILD this receiver...  
Message-ID: <1998Jan23.184751-0500@[130.113.234.7]>

Homebrewing gang...

OK, I've vented my spleen about how you should just jump in and build something. And its been interesting to hear why you haven't yet. This is the first radio receiver I built (that worked). EVERYONE should build one of these. You won't likely fail.

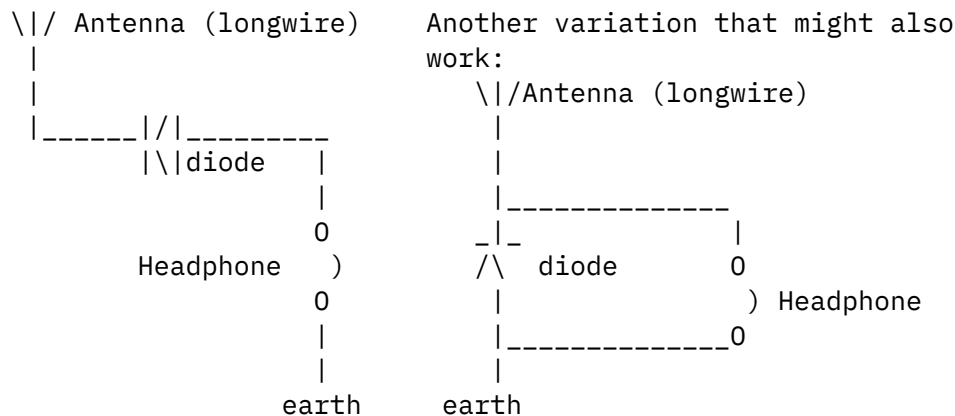
I can even describe it without a schematic.

Grab the most sensitive, high impedance headphones you've got. Find a germanium diode. A 1N34 is great. But any glass germanium diode will do. A germanium transistor will work too - you'll want to find either the base-emitter leads, or the base-collector leads.

Connect one end of the diode (doesn't matter which end) to your outdoor antenna, the other end to your headphone jack.

The other end of the headphone jack goes to earth.  
Presto...an AM radio receiver. It won't be loud though ;-)

Here is the schematic (choose courier font if you have trouble)



Questions to ponder: (Ask if you don't know the answers)

Why doesn't diode direction matter?  
Why does adding earth improve reception?  
Why doesn't a silicon diode work as well?  
Why do high-Z phones work better?  
Why is this an AM radio, and not SSB or CW?

C'mon, BUILD IT! and start your homebrewing career.

Glen VE3DNL    leinwebe@mcmaster.ca

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Date: Fri, 23 Jan 1998 15:49:45 -0500  
From: wpc@west.net (John Roblin / Whiterook Products Co.)  
To: qrp-1@Lehigh.EDU  
Subject: [1785] New Product Announcements!  
Message-ID: <v01530502b0eeb1ed20e9@[205.254.241.203]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Greetings From The Whiterook Products Company! Here's what's new at WPC:

NEW PRODUCTS!

\*\*\*The MK-79S, MK-79EB, and MK-79ES High Brightness LED Mini-Lights

These models are new versions of our popular MK-79 LED Mini-Light. The EB and ES models have \*FIVE\* Ultra Bright LED's. These produce a lot of light with just 20 milliamps current draw at 12 Volts DC.

The MK-79 Series Mini-Lights provide a very low power, highly efficient, and CONTINUOUS source of light for those times when you are on the go and in the field. It's unique \*3 and 5\* Ultra Bright LED design offers light that is more evenly distributed and concentrated compared to "LED flashlights".

\*\*\*The MK-72 Mini-LED Flashlight

The MK-72 uses \*TWO\* ultra bright 8000 mcd yellow LED's. It's the brightest for it's size LED flashlight available.

For more details, visit our World Wide Web Site at:

<http://www.west.net/~wpc/>

For those with E-mail only capability, drop me a note requesting our descriptive text E-Mail Catalog.

Thank you for your time. Stay tuned for more unique portable QRP related items and content on our website.

73, John Roblin WA6KY0

Whiterook Products Company  
Ventura, California USA  
<http://www.west.net/~wpc/>

-----  
Date: 23 Jan 1998 17:54:06 -0500  
From: "rohre" <rohre@arlut.utexas.edu>  
To: qrp-l@Lehigh.EDU  
Subject: [1786] Power Meter bargain:Ten Tec's kit  
Message-ID: <n1326544400.94898@msmailgw1.arlut.utexas.edu>

For those comparing QRP power meters, see my review of the Ten Tec kit Power and SWR meter in past QRP-ARCI QUARTERLY, a year or more ago.

The 200 watt meter scale of the Ten Tec also has a 20 Watt scale.

BUT, for QRP, there is enough range in the cal pots to make a 20 Watt scale and a TWO WATT (2 W) scale!! Just a twist of the pot!! Checked the 49'er and its quarter watt was readable on the standard 20 Watt scale and linear when the scale was converted to 2W, but recal of pot.

The rig has both a HF toroidal coupler, and a moni-match stripline type for VHF and up. It is useable as a relative indicator out to 440 MHz at least.

The HF of course does 3-50 MHz, thus you have everything from 160M on up for \$49 and a modest investment of time. The Ten Tec is smaller profile than the WM-2, but it is heavy steel case and rugged. Self contained 9V battery for the meter amplifier, or alternate external coaxial power jack for DC power supply. Parts and manual are first class, better than Heath kits were.

I don't own stock in TT, etc. (standard disclaimer), but sure own a lot of Ten Tec kits! :-) Many still in line for construction! :-)  
72, Stuart K5KVH

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End of QRP-L Digest 979

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